Chemical Marketing Reporter

NEWS AT HOME

NEWS ABROAD

THE MARKETS

CMR MARKET INDEX

CHEMICAL MARKETING REPORTER's market index of chemicals and related materials (100=1974 average), based on 97 key commercial chemicals, appears alongside with data for two weeks ago, last month and last year.

Sept. 19, 1986	151.25
Sept. 5, 1986	152.62
Aug. 22, 1986	153.04
Sept. 20, 1985	152.67

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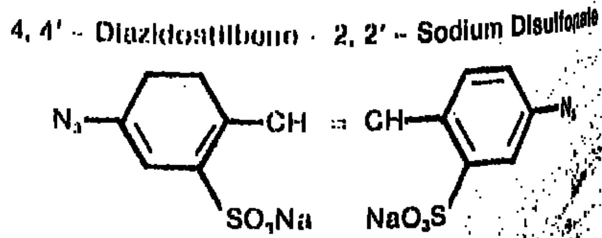

CHEMICAL MARKETING GUIDE

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Chemical Marketing Reporter

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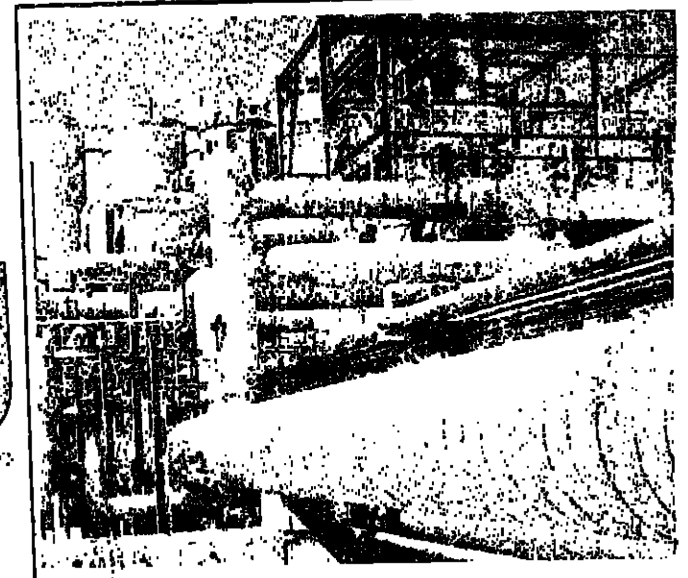

USI At The Top in PE 3

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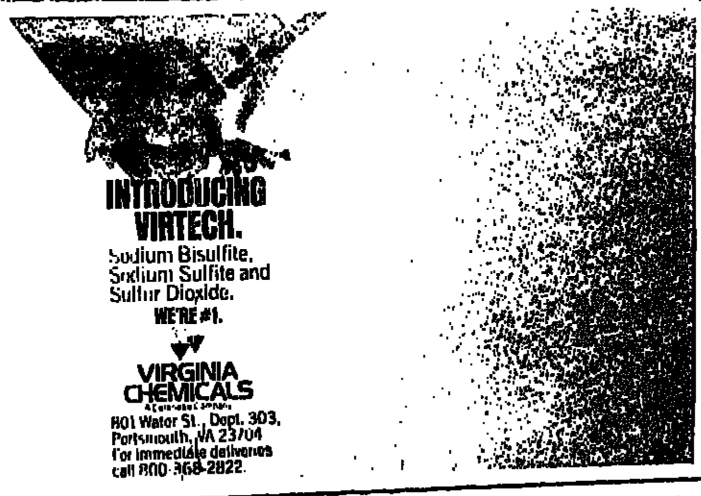

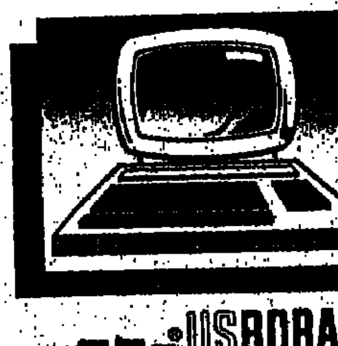

Superfund Tax Tentatively Established

Congressional negotiators have tentatively agreed that superfund taxes on feedstock chemicals should be $1.4 billion over the next five years, an increase of $200 million over the previous level.

The decision came as House and Senate conferees resumed efforts last week to find a way to finance a proposed $8.5 billion reauthorization of the stalled superfund toxic waste cleanup program.

The negotiations resumed two days after Environmental Protection Agency Administrator Lee M. Thomas warned lawmakers the agency would run out of money for superfund by the end of the year unless Congress acts before its planned October 3 adjournment.

"Should adjournment occur before reauthorization is accomplished, there will be no superfund program when Congress returns next January," he wrote in letters to Sen. Robert Stafford (R-Vt.), and Rep. John Dingell (D-Mich.), the chairman of the congressional committees that drafted the new legislation.

The House and Senate passed differing versions of five year extension plan last year, and a House-Senate conference committee has drafted a final compromise. But before lawmakers vote on that package, a separate tax committee must agree on a plan to pay for the new program.

The tax conferees, who put off action on superfund while they spent the Summer hammering out the income tax reform bill, traded new financing offers Wednesday, but they continued to be far apart on reaching a final solution.

Nevertheless, industry observers said Friday they remain optimistic that Congress will pass a final bill and send it to the White House before adjournment.

At last week's meeting, the House agreed to a Senate proposal to include a new broad-based corporate tax in the financing package — something the House had previously rejected. But the major remaining dispute is over how much revenue should be raised by the new tax — a surcharge equal to a corporation's alternative minimum taxable income as computed under the tax reform bill.

The Senate proposed raising $5 billion through the new tax, but the House counteroffer was to raise only $2 billion.

The Senate plan also called for a $500 million tax on the oil industry, $1.4 billion on.

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WASTE SITE: EPA says failure to find new funding could force program end.

Chemical Marketing Reporter

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SEPTEMBER 29, 1986

Grace Reaches Settlement Of Drinking Water Litigation

A potentially precedent-setting case involving industrial pollution of drinking water supplies was settled out of court last week by W.R. Grace & Co. and the 13 families in Woburn, Mass., who filed suit against the company four years ago.

The families alleged that Grace contaminated Woburn drinking water wells and was responsible for six leukemia deaths, as well as birth defects and illnesses.

Grace said it settled out of court to avoid the cost of litigation, insisting that the settlement should not be viewed as an admission of guilt. "We're still maintaining our innocence," a company spokesman said.

Details of the settlement were not disclosed, but it is believed that Grace agreed to pay a total of approximately $8 million to the families — a fraction of the $400 million the plaintiffs were said to be seeking originally.

Grace said the settlement costs and litigation expenses to date would be covered by insurance. The settlement cost is less than what it would have cost to litigate the case in full, according to the company.

Grace said settlement talks had been initiated by plaintiffs, and that negotiations heated up after US District Court Judge Walter J. Skinner ordered a new trial for the first phase of the case, which had ended in defeat for Grace in late July (CMR 8/4/86, pg. 3).

In the first phase, a six-member Federal jury in Boston found that Grace "substantially contributed" to contamination of two wells in Woburn. The jury exonerated Beatrice Companies Inc., which was also charged with contaminating the wells.

Stanley Eller, an attorney representing the plaintiffs, said the "elements for a settlement were all there" prior to Judge Skinner's order for a retrial last week. "We weren't that concerned" about a new trial, Mr. Eller added.

The retrial was ordered because of confusion surrounding answers to questions submitted to the jury during the first phase.

The jury was originally scheduled to reconvene this month for the second phase of the trial, during which jurors were to hear testimony as to whether the chemicals in question — trichloroethylene and tetrachloroethylene — were responsible for the deaths and illnesses.

Grace acknowledged that workers at its Cryovac Division in Woburn occasionally disposed of small amounts of the chemicals on the division's premises, but argued that they could not have migrated to the well sites before May 1979, when the wells were closed.

In the first phase of the trial, the jury accepted expert testimony to the contrary.

Mr. Eller contended last week that the settlement represents a significant precedent because it shows that "individuals can bring these kinds of suits and prevail."

A legal precedent may have already been established in August, when a Federal court in Memphis determined that Velsicol Chemical Company contaminated ground water in Hardeman County, Tenn., damaging residents' immune systems. The company was ordered to pay $5 million to five representative plaintiffs, as well as $7.5 million in punitive damages. Velsicol is expected to appeal the ruling.

Carbide Will Boost Capacity For Butyraldehyde, Butanol

Union Carbide Corporation says it will complete a series of expansions by the end of the year to double annual capacity of butanol at its Texas City, Tex., facility from 200 million to 400 million pounds annually.

As a result of the expansion program begun two years ago, capacity for butyraldehyde, precursor of butanol in the low-pressure oxo process, will total 600 million pounds per year.

Carbide says an additional 20 percent expansion in butanol is planned to be completed at Texas City by 1988 to meet expected market needs.

Closure of the company's Ponce, Puerto Rico, complex at the beginning of 1985 took out n-butanol capacity rated at about 270 million pounds per year.

The company is reported to have moved n-butyraldehyde raw material at times from Puerto Rico to Texas City to beef up its 120-million-pound 2-ethylhexanol unit there.

A Carbide spokesman said last week that some of the equipment at the Puerto Rico plant has been used in the current Texas City expansion. Annual projected output of some 850 million pounds of n-butanol this year is judged to be well within the industry's nameplate capacity of 1.1 billion pounds. However, availability of n-butyraldehyde has been the limiting factor.

More of the raw material has been going into 2-EH production since BASF Corporation closed its 130-million-pound alcohol unit at Montreal, Canada. The plant had been serving BASF's phthalate plasticizer operation at Kearney, N.J.

In addition, Shell Chemical Company has experienced scattered operating problems at its Deer Park, Tex., oxo alcohols facility. The company says it is now back to normal production after a two-week maintenance turnaround in May.

Unlike rhodium or cobalt hydrocarbonyl catalyst plants, the Shell facility uses a cobalt-phosphine catalyst system that produces butanols and 2-EH directly without isolating n-butyraldehyde intermediate.

Flexibility of the Shell plant is believed to be somewhat less, but altering the concentration of hydrogen to carbon monoxide in the synthesis gas feed is said to lend control over butanols to 2-EH ratio.

USI Is at Top in PE With Enron Purchase

A major consolidation is taking place in the polyethylene business, as National Distillers & Chemical Corporation prepares to buy the chemicals division of Enron Corporation. The move will catapult National's petrochemicals unit, US Industrial Chemical Company, into market leadership in the US polyethylene business and will make the company perhaps the largest manufacturer of polyolefins in the world.

National Distillers says it will pay $575 million cash and $34 million in assumed debt for Enron Chemical, formerly known as Norchem and before that Northern Petrochemical.

The major assets of Enron Chemical are petrochemical plants at Morris, Ill., and Clinton, Iowa. To pay for the acquisition, National says it will sell its wine and spirits division that features brand names such as "Almaden" wine and "Old Grand Dad" bourbon. Analysts have estimated that this unit may fetch National up to $500 million.

The Enron acquisition will add 1 billion pounds of low-density polyethylene capacity to USI's stable, 250 million pounds of linear low-density polyethylene, 350 million pounds of high-density polyethylene and 230 million pounds of polypropylene to USI's capacity totals.

The LLDPE and PP capacity provides USI an entree into these two high-growth polymers. After the acquisition is completed, National will have the largest nameplate conventional LDPE capacity (1.8 billion pounds per year) in the US, and the second largest HDPE total (1.2 billion pounds) following Phillips Petroleum.

Commodity polyolefins are entering a period of relative prosperity after several difficult years, and several analysts note that now is a good time to expand operations in the field.

Operating rates for all thermoplastics are running above 90 percent, and feedstock prices are low. With the knowledge that little new capacity is due on line through the 1980's, several analysts have suggested that prices and profitability for polyolefins will soon rise sharply.

Patrick Baggett, vice-president of Chemical Marketing Associates, Inc., a Houston-based market research firm, calls USI's acquisition a "good deal. The commodity thermoplastics business is currently operating at high rates worldwide. Plastics haven't been real profitable in recent years, but they're close to turning the corner and becoming very profitable."

Robert Bauman of Chem-Systems, Inc., Tarrytown, N.Y., who acted as a consultant in the purchase, says the timing of the deal is "critical," since USI is expanding during an upswing in the plastics cycle. Not only is the company buying large quantities of plastics output, but it is also building a 220-million pound LLDPE-HDPE swing plant in Port Arthur, Tex. which is due on line next year.

According to Mr. Bauman, not only are US plants running at high rates, but recent LLDPE capacity start-ups in Canada have already been absorbed in the market, as has Saudi Arabian material.

In addition, supply can't keep up with the

Continued on Page 24

USI Polyolefin Capacity*

	LDPE	LLDPE	HDPE	PP
Tuscola, Ill.	170	—	--	--
La Porte, Tex.	455	—	550	--
Port Author, Tex.	190	—	310	—
Morris, Ill.	550	250	--	230
Clinton, Iowa	450	--	350	—.
Total	1,815	250	1,210	230

Source: USI and CMR Chemical Profiles.
*Millions of pounds per year. In addition USI is building a 220-million-pound-per-year LLDPE-HDPE swing plant at Port Arthur, Tex., due on stream in late 1987. USI acquired the Port Arthur LDPE and HDPE facilities from Arco in early 1984. USI is purchasing the polyolefin assets at Morris and Clinton from Enron, formerly known as Norchem. Norchem bought the Clinton facility from Chemplex in January 1985. Norchem brought on stream the LLDPE capacity at Morris in late 1984. The Enron purchase will also supply USI with 1.7 billion pounds of ethylene capacity split between Morris and Clinton, 230-million pounds of annual ethylene oxide and 200 million pounds of ethylene glycol capacity at Morris and certain other assets.

Acid Rain Court Ruling Is Overturned on Appeal

A Federal appelate court has reversed a lower court ruling by dismissing a lawsuit by seven Northeastern states seeking to force Environmental Protection Agency to reduce industrial emissions believed to cause acid rain. The US Court of Appeals overturned a July 1985 ruling by US District Court Judge Norma Holloway Johnson, which directed EPA to require states to reduce sulfur dioxide and nitrogen oxide emissions from coal-fired power plants and other industrial facilities.

The three-judge appeals court ruled that EPA was not required to issue the directive because such action "is within the agency's discretion and not subject to judicial compulsion."

Shortly before President Carter left office in 1981, then EPA Administrator Douglas Costle wrote to Sen. George Mitchell (D-Maine), and Secretary of State Edmund Muskie that findings of the International Joint Commission, a joint US-Canadian agency, gave him reason to believe that air pollution in the US, particularly sulfur dioxide emissions, was damaging Canada.

Most scientists agree that sulfur dioxide and nitrogen oxides emitted by factories and power plants South of the Canadian border, many of them in the Midwest, are changed into sulfuric acid in the atmosphere as they flow North and East and fall as acid rain in Canada and the Northeast US.

NORTHEAST CONTENTION

The Northeastern states contended that Mr. Costle's letter was sufficient to trigger a section of the Clean Air Act that requires EPA to order emission control action if the agency finds that US emissions are causing *environmental damage in other countries.*

EPA argued that scientific knowledge about acid rain was not advanced enough for it to pinpoint which states should be covered by such an order.

But Judge Johnson ordered EPA to proceed, leaving it up to agency officials to determine which states to cover.

However, the appelate court passed over scientific questions to focus on the general requirement that agencies may not make rules without public notice and giving affected parties an opportunity to comment.

If Mr. Costle's letter is to bind his successors, it is a rule, and "We conclude that if Administrator Costle's findings...forced EPA to take direct and substantial regulatory actions — they could not be promulgated without notice and comment procedures," the panel wrote.

Thus the letter "cannot be the basis for the judicial relief appellees seek. How and when the agency chooses to proceed to the stage of notification triggered by the findings is within the agency's discretion and not subject to judicial compulsion."

EPA also argued that Judge Johnson's order was an inappropriate intrusion into what primarily was a diplomatic dispute between Canada and the US.

O. Jules Romary, who will succeed J.B. Reid as vice-president and secretary of Union Carbide Corporation. He has been director of investor relations for Union Carbide since 1984.

Phillips Biosciences Forms Joint Venture

Phillips 66 Biosciences Corporation, a Phillips Petroleum Company subsidiary, has formed a joint corporate venture with a German drug firm to manufacture and market pharmaceutical products in Germany.

Phillips 66 Biosciences owns 50 percent of the new company; Bissendorf Biosciences GmbH. The remainder is owned by Bissendorf Peptide GmbH and Braunschweiger Biotechnologie GmbH, a Bissendorf Peptide subsidiary. The new company is based in Bissendorf, West Germany.

A drug useful in diagnosing human dwarfism, known in Germany as "Somatobiss", will be the first commercial product of Bissendorf Biosciences.

This drug was developed by Bissendorf Peptide from human growth hormone release factor, which occurs naturally in human beings.

Stringfellow Case Heads for Judgment

A Federal court in Los Angeles has been advised to issue a summary judgment against a number of large corporations that allegedly dumped millions of gallons of hazardous waste at the Stringfellow acid pits in Riverside County, Calif. from 1956 to 1972. The defendants include General Electric, McDonnell Douglas and Stauffer Chemical.

If the court accepts the recommendation of retired judge Harry Peetris, who was appointed to advise the court on the Stringfellow case, a trial would be held to determine how cleanup costs will be divided among the companies.

The operators of the dump and the companies alleged to have dumped wastes there were sued by the US Department of Justice and the state of California in 1983 for recovery of cleanup costs.

Air Products Invests In Chinese Concerns

Air Products and Chemicals, Inc., says that, subject to final government approval, one of its subsidiaries will become a partner in Chun Wang Industrial Gases, Ltd., an industrial gas company located in Shekou, Guangdong Province of the People's Republic of China.

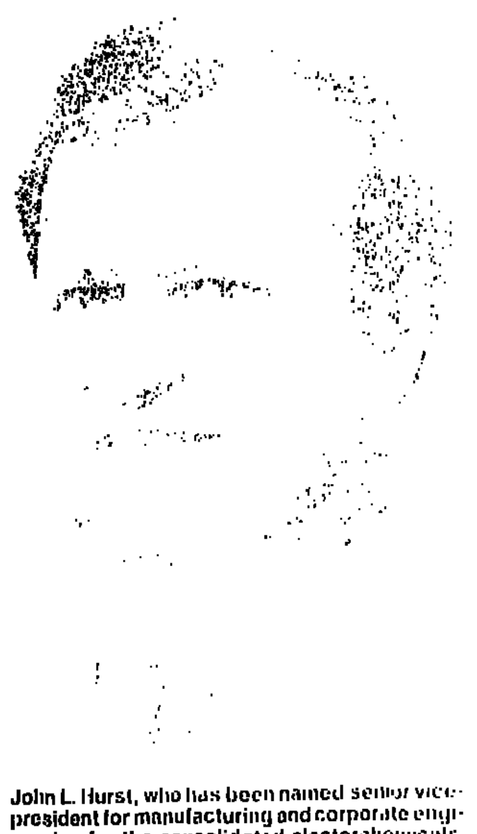
Chun Wang, established in 1979, supplies industrial gases and acetylene in both China and Hong Kong, and recently was awarded a contract to supply nitrogen and hydrogen to a new float glass manufacturing plant being built in Shekou by Guangdong Float Glass Company, of which PPG Industries is a major partner.

Air Products' partnership in Chun Wang will mark the first investment by a major Western industrial gas company in the People's Republic of China and is a part of the company's overall strategy of expanding its business in the Far East.

Carbide Latex Plant To Expand by 50 Pct.

Union Carbide Corporation today plans to increase latex production capacity at its UCAR Emulsion Systems facility in Garland, Tex. by 50 percent. This expansion project — the third major addition to the plant since it began operations in 1972 — is scheduled for completion by June 1987.

The plant and technical service laboratory in Garland serve customers in the Southwest with a variety of latexes used in the manufacture of paints, building products, and adhesives.



John L. Hurst, who has been named senior vice-president for manufacturing and corporate engineering for the consolidated electorchemicals, detergent and specialty products group of Occidental Chemicals.

Arsenic Demolition Ordered For Tacoma

Environmental Protection Agency and Asarco say they have reached agreement on the demolition of structures and equipment used to produce arsenic at the company's Tacoma, Wash. copper smelter, which was shut down last year.

The order will govern Asarco's performance of the upcoming demolition work, of investigations the company will undertake to determine the extent of arsenic contamination, and of studies to develop cleanup alternatives.

The superfund consent order requires the arsenic-laden facility to be dismantled in a manner which will prevent further release of arsenic.

Arsenic and other heavy metals have been found in soil and groundwater on the property.

Polypropylene Plant Expanded by Soltex

The polypropylene production capacity of Soltex Polymer Corporation's Deer Park, Tex., plant has been increased from 220 million to 300 million pounds per year, a gain of 80 million pounds. Joe Muzikowski, business manager for polypropylene, says this 36 percent gain in production capacity is a result of debottlenecking of the plant's compounding facilities.

According to Mr. Muzikowski, the increased capacity will enable Soltex to manufacture a wider range of products and give it the flexibility to supply markets, such as film and blow molding, with products tailored to customers' specific needs.

Sandoz Enters Management Accord

A management agreement, entered into by Sandoz Canada and Sandoz Chemicals Corporation of Charlotte, N. C., provides for the assumption of operational supervision of the Canadian Chemical group by Sandoz Chemicals Corporation.

Additional technical service will be provided by the various industry laboratories in Charlotte.

CMC Unit Complete

Metsalliton Teollisuus Oy of Finland has completed a modernization of its carboxymethyl cellulose unit to increase capacity by nearly 6,000 metric tons per year. The expansion for the company's Aanekoski Chemical Division is split about 50-50 between purified and technical grades and brings total capacity up to 35,000 tons per year.

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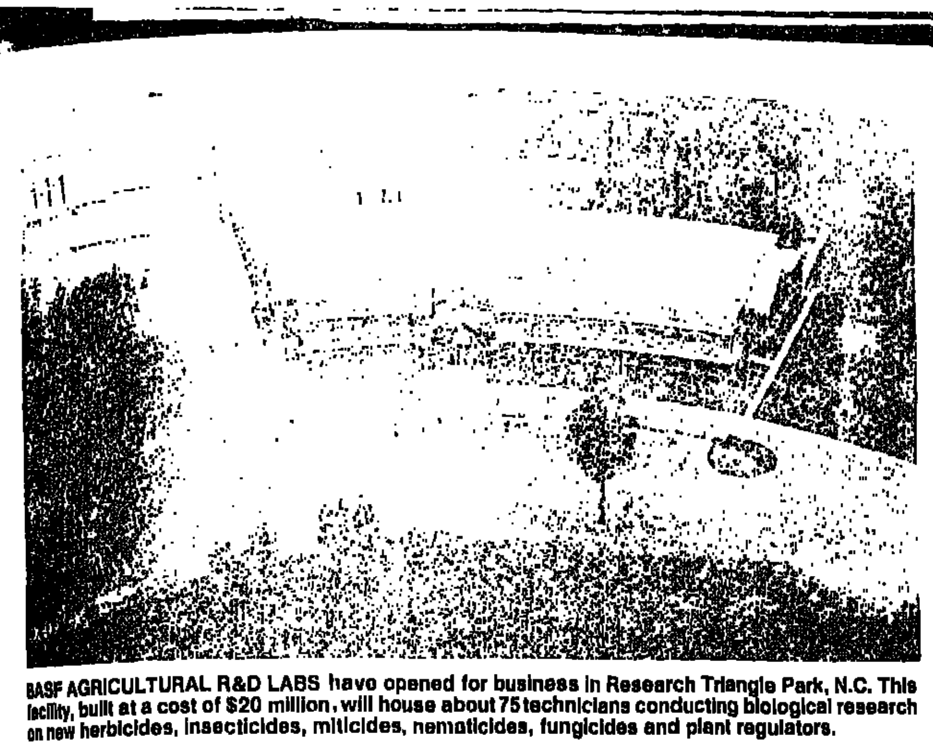

BASF AGRICULTURAL R&D LABS have opened for business in Research Triangle Park, N.C. This facility, built at a cost of $20 million, will house about 75 technicians conducting biological research on new herbicides, insecticides, miticides, nematicides, fungicides and plant regulators.

Plasticizer Producers Unite Behind October Increase

In what one observer calls "the most widely supported increase this industry has seen in five years," major US plasticizer producers are attempting to raise selling prices for dioctyl phthalate (DOP) and other phthalate, adipate and trimellitate plasticizers.

These include dibutyl phthalate (DBP), dioctyl adipate (DOA), and trioctyl trimellitate (TOTM) by 2 cents per pound, effective October 1. Prices for BASF's "Polatenol 11-P" diundecyl phthalate (DUP) and equivalent product lines will not be affected, nor will list prices.

The Chemicals Division of USX Corporation and Nuodex Inc. were the first to announce fourth quarter hikes three weeks ago. They have since been joined by Tennessee Eastman Company, Eastman Kodak Division, Monsanto Chemical Company, Hatco Chemical Corporation, and Reichhold Chemicals Inc.

Profitability in this market has been dismal for the past five years, producers explain. Extremely tight supplies of n-butyraldehyde and oxoalcohols, particularly 2 ethylhexanol (2EH), have been a major problem, they say. Although domestic producers such as Union Carbide Corporation, which has been debottlenecking its Texas City, Tex., facility and plans to effect significant capacity expansions by 1988, intend to increase oxoalcohol production this year, plasticizer producers in the US have faced a shrinking supply of oxoalcohols since the late 1970's, when Oxochem Enterprises, a major producer, went under. Last year, Union Carbide Corporation shut down one of its oxoalcohol plants and Celanese put one on standby. This February, BASF shut down its Montreal, Canada, plant. Spot shortages caused by fires and mechanical problems at various producers' facilities exacerbated the supply problem this Summer, as many producers were forced to adopt "controlled selling programs."

Reflecting the worldwide supply crunch, costs for the alcohols increased 15 percent by July 1986 over 1985 levels. Since July, they have risen an additional 7 to 8 percent, plasticizer producers report. In addition, costs for key raw materials, such as phthalic anhydride and TMA (trimallitic anhydride) have risen between 6 and 8 percent over this same period.

Raw material supplies and costs are far from being the only obstacles confronting plasticizer producers, however. Flat demand for PVC, a major outlet for plasticizers, accounting for more than 65 percent of all phthalate plasticizers produced, and a flood of materials from South American and the

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Oil and Products Imports Seen Doubling by Conoco

Crude oil and petroleum product imports will increase from 26 percent of US demand in 1985 to 41 percent in 1990 and 56 percent by the turn of the century, according to a forecast by Conoco Inc., the energy subsidiary of E.I. du Pont de Nemours & Co.

The study predicts nearly 11 million barrels will be brought into the US daily in the year 2000 compared with just over 4 million barrels a day in 1985. OPEC's share of world oil supply is expected to reach 60 percent by 2000, up from 38 percent in 1985.

Noting that the world's oil reserves are concentrated in regions having significant potential for supply disruption, the outlook warns that "rising import dependence means a higher risk of an economically damaging shortfall, reduced flexibility in formulating and implementing foreign policy and greater military obligations to safeguard vital supply links."

At the same time, the ability to respond with an increase in domestic supply will be greatly diminished, the forecast points out.

Because of the uncertainty as to when and at what level crude oil prices will stabilize, the study considers high, low, and mid-range cases. It focuses on the mid-range, where it forecasts prices will fluctuate between $15 and $20 a barrell through 1990 and rise rapidly during the 1990's as the supply-demand balance tightens, reaching $40 to $50 a barrel in the year 2000. (The forecast assumes average annual inflation of nearly 4 percent).

Underlying this outlook was the dramatic collapse of crude oil prices early this year, the study notes. Low prices have forced the shutdown of high-cost oil production and the slashing of exploration and development budgets across the industry.

About $200 billion would have to be invested in US oil and natural gas exploration and production through 1990 to keep output at 1985 levels, Conco estimates.

However, given lower revenues, reduced price expectations and increased capital demands from refining and transportation because of higher oil consumption, exploration and production spending will fall far short of recent levels, the company says.

The challenge for the United States is to develop policies that permit consumers to benefit from lower oil prices while minimizing the risks of future import dependence, Conoco says.

The study also predicts that oil demand will grow as lower prices spur driving; demand growth will average about 0.5 percent

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Pesticide Reform May Elude Congress

The chances of enacting major pesticide reform legislation this year appeared virtually nil at week's end as the Senate failed to act and both environmentalists and the chemical industry criticized provisions added to the House version of the bill on September 19. A bill to reauthorize and significantly overhaul the Federal Insecticide, Fungicide & Rodenticide Act was on the Senate calendar last week, but action was delayed by a filibuster on unrelated legislation and the leadership's desire to consider more politically attractive issues before adjourning for the November elections. Congress is scheduled to adjourn October 3.

Although the House adopted two amendments that trouble the chemical industry, the National Agricultural Chemicals Association says it still supports the bill and is hoping for quick action by the Senate. Patent term restoration provisions contained in the Senate FIFRA bill are considered the industry's top priority.

Still, a spokesman admits that a liability provision agreed to by the House "is unquestionably bad news for us." As written by the agriculture committees of both the House and the Senate, farmers would not be liable under any Federal law for damages caused by pesticides unless they acted negligently, recklessly or intentionally.

However, under the amendment added to the bill by Rep. Pat Roberts (R-Mont.), while farmers would be absolved, liability would apply to the chemical company that registered the pesticide. Sen. Dave Durenberger

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Jonathan M. Fry, who has been named chief executive of the Castrol subsidiary of Burmah Oil PLC., *effective January 1, 1987. He is currently chief executive of Burmah Specialty Chemicals.*

Polycarbonates Carving Out Niche in Health-Care Market

Polycarbonates' small niche in the health-care market's annual 1.7-billion-pound-consumption of plastics is growing rapidly, according to Mobay Corporation, a manufacturer.

This assessment was made by Earl Haag, technical marketing manager in Mobay's plastics and rubber division, in a paper delivered last week at the regional technical conference of the Society of Plastics Engineers' medical plastics division, Cherry Hill, N.J.

"Plastics are established materials of construction for medical devices and diagnostics," says Mr. Haag, "and they are destined to play an increasingly important role as the $420 billion health-care industry seeks ways to control burgeoning costs."

Polycarbonate has been an effective solution in the past and, he adds, and "it is well-suited to meet future challenges of this specialty market." As an example, he cited new improved color-corrected grades with less perceived color change after gamma sterilization.

During 25 years of commercial use in a wide variety of applications, polycarbonate has enjoyed a remarkable growth rate because of its strength, toughness, transparency, heat resistance and dimensional stability, Mr. Haag says. "These properties were put to early use in medical devices when compatibility with body fluids, principally blood, and sterilizability were demonstrated," he recalls.

The use of polycarbonate in blood oxygenators was particularly significant in establishing confidence in the resin and encouraging new applications, he points out.

As plastic oxygenators became more sophisticated and ancillary devices such as cardiometry reservoirs, blood filters and others were developed, the ability of injection-molded polycarbonate to hold tight tolerances greatly facilitated post-molding assembly.

Biotechnology Industry Gives General Support to Guidelines

In comments submitted to the White House last week, the Industrial Biotechnology Association offered general support for the biotechnology regulatory guidelines proposed by the Reagan Administration earlier this year.

But the trade group urged the office of science and technology policy to revise certain definitions, recommended some exemptions to regulatory oversight, suggested modification of its proposed regulation, and opposed the Department of Agriculture's research guidelines.

"After full review and unanimous approval by our board of directors, IBA has offered official responses to all six documents published for comment in the June 26 *Federal Register*," says Richard D. Godown, IBA's executive director.

"Our earlier assessment that the guidelines are 'strict but workable' remains. But we continue to have unsettling concerns-most dealing with USDA and EPA," he adds.

Dr. Alan Goldhammer, director of technical affairs, says IBA is particularly concerned about the proposed definition of a pathogen. A genetically engineered organism is considered a pathogen even if the recipient or host organism is a non-pathogen and the inserted genetic material comes from an organism that is a known pathogen.

"Many useful genetically engineered microorganisms have been created in such a manner and these organisms are not pathogenic," IBA comments. "One of the chief virtues of r-DNA technology is that most genetic material from pathogens can be cloned into non-pathogenic recipient organisms and worked on in safety under routine laboratory conditions."

The group notes that much of the present research on diseases such as hepatitis, AIDS, and malaria would be difficult if not impossible to carry out in the absence of r-DNA technology.

IBA proposed two clarifying definitions that would exclude genetically engineered organisms created using genetic material from classification as a pathogen.

Dexter Baker, who has been elected to succeed Edward Donley as chairman of the board and chief executive officer of Air Products & Chemicals Inc. effective December 1.

Oxy, Church & Dwight Form New Partnership

Occidental Petroleum Corporation and Church & Dwight Company, Inc., announced last week that they have signed a letter of intent to form a partnership to produce and market potassium carbonate and related products. The new partnership, Armand Products Company, will be equally owned.

The partnership will own and operate an existing 37,000-ton-per-year potassium carbonate plant in Muscle Shoals, Ala., that was recently acquired by Occidental from Diamond Shamrock Corporation. The facility is the only potassium carbonate plant in the US. The partnership will own and market existing potassium carbonate product lines.

Under the terms of the agreement, Occidental will receive 1,110,000 shares, representing approximately 5 percent, of the outstanding common stock of Church & Dwight, plus approximately $6.3 million in cash. The founding families and management of Church & Dwight will continue to own more than 50 percent of Church & Dwight's stock after this transition.

Upon completion of the transaction, which is expected within the next month, Dr. Armand Hammer, chairman and chief executive officer of Occidental, will be elected to the Church & Dwight board of directors.

Church & Dwight has expressed a desire to enter the potassium chemicals business for some time. Earlier this year (CMR, 2/10/86, pg. 3) Church & Dwight announced the signing of a letter of intent to enter a potassium chemical venture with Olin Corporation.

Since then, Olin has said it would convert up to half of its chloralkali facility at Niagara Falls, N.Y., to production of potassium hydroxide, the raw material for potassium carbonate (CMR, 7/7/86, pg. 7). That project, which will give Olin the capacity to produce 70,000 tons of potassium hydroxide, is scheduled for completion in the fourth quarter.

Church & Dwight now says it is still considering the Olin venture, but that the Occidental partnership will command most of its attention for the moment. Also on hold for the time being, says Church & Dwight, is a Canadian potassium hydroxide and potassium carbonate plant that the company has also considered.

Also involved in potassium carbonate at the Muscle Shoals plant is LCP Chemicals & Plastics Inc. Last year LCP entered a 10-year supply arrangement with Diamond Shamrock for a significant portion of Diamond's potassium carbonate output and, to a more limited extent, its potassium hydroxide output.

All involved say the LCP arrangement is not affected by either the purchase of Dia-

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Mutagen R&D Lack Hobbles US

Without the continued research and development of new technologies, the Federal government will continue to lack both the tools to evaluate risks from occupational and environmental exposures and the information to frame rational laws and regulations to protect people from mutagens, says a Congressional study.

According to the Office of Technology Assessment, heritable mutations are the most poorly understood of the known or suspected effects of exposures to chemicals and physical agents in the environment.

"Yet, Congress has passed laws requiring protection of the public from exposures that can cause these permanent changes in the genetic material which can be passed on to succeeding generations," says OTA.

"Continuing to rely on inadequate knowledge about the causes and effects of mutations could result in poorly-informed decisions about acceptable levels of exposure and the level of resources needed to provide protection from such exposures," adds the report.

OTA, the research arm of Congress, carried out the analysis at the request of the Senate Veterans' Affairs Committee and the House Science & Technology Committee, which are charged with framing public health laws.

Among the laws that specifically require protection against the risk of mutations are superfund and the Toxic Substances Control Act.

With few exceptions, current methods are clearly inadequate to determine whether exposures to environmental chemicals and radiation are important influences on the frequency of heritable mutations in the population, says OTA.

In human beings, specific causes of herita-

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P&G Glycerine Nearly Doubling; Need Doubted

Proctor & Gamble said last week that it plans to increase its glycerine refining capacity from 110 million pounds to almost 200 million pound annually. The company would not put an exact date on the plan's completion but stated that the expansion would be a "multi-year process."

With ten plants around the country, Proctor & Gamble is the largest US producer of natural glycerine.

Observers greeted the announcement with surprise last week, with one producer saying, "I don't see a need for any new production with domestic demand for glycerine historically falling between 285 and 310 million pounds per year."

Total US capacity now stands at 370 million pounds annually for both synthetic and natural glycerine, while imports have averaged 40 million pounds during 1984 and 1985.

Proctor & Gamble claims to be taking the

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Commodities: Output Evolving To Efficient Few

The output of tonnage chemicals, such as chlorine, caustic soda, ethylene and sulfuric acid, will be concentrated in the hands of a few efficient producers by the year 2000. That's the opinion of Dr. Charles H. Kline, chairman and past-president of Charles H. Kline & Co.

In a talk before the American section of the Societe de Chimie Industrielle at the Chemists' Club in New York, Dr. Kline predicted that there would be, perhaps, no more than eight or so of these producers, and most of them would be operating on a global basis.

Probing deeper into the make-up of the chemical industry during the next century, he sees a shakeout coming in specialty chemicals, with this segment of the marketplace again dominated by the efficient manufacturers. Pointing out that there are over two dozen companies involved in carbon fibers today, he says he is convinced that two-thirds of them will be gone from the scene in the next 14 years.

Dr. Kline looks for more product-oriented

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Pigment Breakthrough?

Heubach, Inc., a Newark, N.J., pigment maker, claims to have made a breakthrough in inorganic pigment technology that will significantly reduce dust hazards in the production of paint, ink and plastics without requiring formulation changes.

"Chrome yellow and molybdate orange make up the highest-value pigment types of the more than 50 pigment types offered to paint, plastic and ink makers," says Dave Waldron, Heubach's business manager for these pigments.

"As of this year an estimated one-third of all lead chromate volume in the United States has been replaced at a cost burden of $1 billion to $2 billion, which has been passed on to consumers in the last few years. By reducing inorganic pigment dusts by as much as 90 percent, the new technology may enable end users to avoid this huge cost burden," Mr. Waldron says.

"What is remarkable about this development is that it is achieved by altering the electrostatic charge on a pigment's surface and does not in any way require changes in formulations in which the pigment is used," says Bill Arnheim, Heubach's vice-president for R&D, who led the scientific staff in developing the new technology.

Extensive laboratory and field tests confirmed that gloss and color strength are not affected by the low-dust treatment, the company says.

The development of the improved pigments was accomplished much more rapidly because of the use of a new dust testing appliance developed by Heubach in Germany, the firm adds.

"Chrome yellow, zinc chromate, and molybdate chrome orange, thus far, are

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Oil Price Decline Seen Leading To US Dependence on OPEC

Low oil prices have failed to help the US economy, while recent modest improvements in oil prices have generated "undue optimism in Houston and Washington" about the future of the US-based oil industry, Amoco Corporation's chief economist says.

Dr. Theodore R. Eck said in testimony before the Senate Committee on Energy & Natural Resources, "The energy-led recession in the Rocky Mountain and Southwestern states seems to have fully offset any benefits that may have accrued to the rest of the nation.

"Moreover, recent oil import volumes have increased and promise to continue to rise. The combination of high import dependency and sharply lower domestic investment for oil and gas exploration and production can scarcely be expected to boost US economic performance."

According to Dr. Eck, stabilization of crude oil prices at $16 to $18 per barrel could be the "worst case for much of the world."

He explains that this price range would be high enough to allow many Arab nations to live comfortably, while the US, Britain, Mexico, Egypt, and Iran, and many other smaller producing countries would remain under severe financial pressure.

The Soviet Union would also face serious foreign currency limitation strains that could result in more aggressive political action in the Middle East, Dr. Eck says.

Assessing the future role of OPEC, Dr. Eck says, "The inescapable conclusion is that low crude oil prices (approximately $16 to $18 per barrel) will not permit the US to maintain the current levels of proven crude oil and natural gas reserves.

"If prices under $20 persist for the near-term years, the decline in reserves in the US will accelerate very significantly from the already declining trend in the past 10 years. And a continuance of low oil prices will also not justify the levels of capital spending required to find large quantities of crude in the relatively high-cost areas of the world outside."

As a result, Dr. Eck says, "control of crude oil available for import into the industrialized countries will inevitably become more and more concentrated in Saudi Arabia, Kuwait, Iran, Iraq, and Abu Dhabi — the five low-cost producers which control 61 percent of the free world's proven oil reserves.

"If the leadership of the Middle East were to become less friendly to the West, we could face very unfavorable cost and supply conditions."

Dr. Eck says the government can help the petroleum industry by refraining from actions that would further worsen its financial abilities.

DES Lawsuit Seeks $100 MM From Drug Firms

A New York woman has filed a $100 million lawsuit against seven former manufacturers of DES (diethylstilbestrol), charging that the drug was responsible for her child being born with cerebral palsy. The woman's mother took the drug in 1954.

The suit is among the first to be filed on behalf of third-generation DES victims, and more are expected to follow under a New York State law, enacted this Summer, which allows certain toxic tort actions to be filed, even though the statue of limitations has expired.

Last month, three women filed DES suits totaling $95 million one day after the new law was signed (CMR 8/4/86, pg. 12).

The latest suit charges that the seven companies were "careless and negligent" in the manufacture and marketing of DES, used mostly in the 1940's and 1950's to prevent miscarriages. DES was later linked to cancer in the daughters of women who took the drug.

The seven companies named in the suit are: Eli Lilly & Co., E.R. Squibb & Sons Inc., Abbott Laboratories, Upjohn Company, Merck & Co., Rexall Drug Company and Winthrop Company (part of Sterling Drug).

The companies declined to comment on the suit last week, most saying it was against policy to discuss pending litigation. Lilly said it had not yet seen the complaint and would not comment until it did.

Winthrop spokesman Terry Kelley said, "Our brand of DES was never indicated with problems associated with pregnancy." He also said the company was not a major producer of the drug.

News Capsule

LNG Charter Set

Shipment of liquefied natural gas from Indonesia to South Korea will commence next month under a 20-year supply agreement under which Pertamina, the Indonesian state oil company, will supply South Korea with 2 million tons of gas annually. The LNG carrier *Golar Spirit*, owned by Gotaas-Larsen, will carry the first cargo from Arun, Indonesia, to Peong Taek, South Korea.

Plastics Plant Planned

Genpak Corporation, maker of foam-hinged, carry-out containers and foam trays for the food industry, plans to build a new, $5 million plant in Mecklenburg, N.C. Genpak will lease an existing 108,000-square-foot building to house the new operations. The plant and equipment will represent an investment of nearly $5 million when fully operational, according to the Glens Falls, N.Y., company.

Big Three Sale

Big Three Industries Inc. has agreed to sell all 8.3 million shares of common stock in Nowsco Well Service Ltd. to two Canadian investment banking firms, Gordon Capital Corporation and Dominion Securities Ltd., both of Toronto. The holding represents 61.4 percent of Nowsco, a worldwide supplier of acidizing, cementing, fracturing and stimulation services for oil and gas wells.

Fatty Acids Study

Retail sales of omega-3 fatty acids will reach an estimated $20 million this year, according to Eldib Engineering & Research Inc., which predicts that omega 3 fatty acids from fish oils will be the "next big craze" in the health-food market. The encapsulated fish oil products are easy to take and replace the need to include oily fish in the diet several times a week, Eldib observes.

Owens-Corning Restructures

Owens-Corning Fiberglas Corporation has reorganized its operations into three units: construction products, industrial materials and international. As previously announced, the aerospace and strategic materials group will be sold. The company recently thwarted a takeover attempt by Wickes Companies.

IMC Agrees to Sell

International Minerals & Chemical Corporation has agreed to sell its US gas and oil businesses to Wintershall Corporation, Denver, Colo. Wintershall is a subsidiary of Wintershall AG of Germany, part of the BASF Group. Included in the purchase is a gas pipeline network in Louisiana.

J&J Enters Accord

Johnson & Johnson has signed a letter of intent to purchase Life Scan Inc., Mountain View, Calif. Life Scan manufactures and markets diagnostic tests that are used at home by diabetics to measure blood sugar levels. J&J's Ortho Pharmaceuticals units markets other diagnostic kits used in the home.

Rhone-Poulenc Venture

May & Baker, a wholly-owned subsidiary of Rhone-Poulenc Group in the UK, is transferring its photochemicals operations to a joint venture with Champion Chemtech Ltd. of Canada. May & Baker holds a 25 percent stake in the venture.

Magnesium Venture Set

Norsk Hydro AS will go ahead with its $230 million magnesium project at Becancour, Quebec, Canada. Work is scheduled to begin in April, 1987, on the project which is sized to produce some 60,000 tons annually of magnesium, representing a 25 percent increase in the world's supply.

Thomas H. Kennedy, who has been named executive vice-president of Celanese Chemical Company, with responsibility for worldwide sales and marketing, as well as operations and technical functions.

McKesson To Sell Its Distribution Unit

McKesson Corporation, San Francisco-based distributor and producer of industrial and consumer products, has reached an agreement to sell its chemical distribution operation — McKesson Chemical Company — in a three-step transaction for $76 million in cash.

The ultimate buyer of McKesson Chemical will be Univar Corporation, which, headquartered in Seattle, Wash., is a distributor of industrial chemicals in the US through its Van Waters & Rogers Division, and in Canada through a subsidiary, Van Waters & Rogers Ltd.

McKesson said that after the closing of the transaction, it plans to sell the two remaining components of its chemical group — McKesson Envirosystems (a solvent recycler) and McKesson Environmental Services (a technical laboratory and consulting firm specializing in environmental audits).

In the sale of McKesson Chemical Company, first Pakhoed Holding NV, a Dutch company, will capitalize a US subsidiary with approximately $26 million. Next, the subsidiary will acquire the assets, subject to certain liabilities, of McKesson Chemical for $76 million.

Next, Pakhoed will exchange the stock of the subsidiary (representing, in effect, McKesson Chemical) for 3,053,000 shares of Univar, which will represent an approximately 35 percent ownership of Univar by Pakhoed.

The chemical group represented about 10 percent of McKesson Corporation's total corporate revenues and about 3 percent of its operating profit — $6.3 billion and $78 million, respectively, in the fiscal year ended March 31.

Thomas W. Field, Jr., McKesson's president and chief executive officer, said that these moves will complete the transition of McKesson from a highly diversified operation to a company focused on distribution services and consumer products. These include drugs, health and beauty aids, housewares, bottled water, alcoholic beverages and office supplies. Marketing is to retailers, health care providers and consumers, depending upon the products.

McKesson was originally a New York-based distributor of chemicals and liquor called McKesson & Robbins Incorporated, with a massive nationwide distribution system. In the 1960's, the company was acquired by Foremost Dairies, and the combined organization was named Foremost-McKesson. Later, the dairy business was sold, after the merged company had added many consumer and industrial lines to its business.

"We now serve some 120,000 retail establishments and health care providers, filling over 40,000 orders a day, and we are well on

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Oil Tax Bill Is Defeated In House Vote

House tax writers last week defeated a measure opposed by the chemical industry that would have imposed an excise tax on imported crude oil and refined petroleum products in an effort to help reduce the Federal deficit.

The House Ways & Means Committee, looking for revenue to include in a $15.5 billion package of deficit-reduction measures, rejected the oil import fee proposal by Rep. Byron Dorgan (D-N.D.) on a 12-6 show of hands.

The proposal would have, in effect, set a $22 base price for a barrel of imported oil, but it would not have applied to heating oil or products used in agriculture.

"We are in desparate need of money. This is one approach that yields some very significant revenue," said Rep. Dorgan, who estimated his amendment would raise $14.6 billion in fiscal 1987.

The Reagan Administration, as well as the chemical industry, opposed the imposition of an oil import fee.

McNeil Drug Is Targeted by Health Group

A consumer-advocate organization last week asked the Federal government to ban a new arthritis and pain-killing drug on grounds it can cause kidney damage.

In a letter to Food & Drug Administration Commissioner Frank Young, Dr. Sidney Wolfe, director of Public Citizen Health Research Group, said "Suprol" should be taken off the market as soon as possible.

Dr. Wolfe said the drug, manufactured by Johnson & Johnson's McNeil Pharmaceutical Division, has caused more than 100 reported cases of kidney damage, mostly in American patients. He claimed the actual number of patients suffering kidney damage from the drug, also known as suprofen, may be much higher.

Johnson & Johnson spokesman Robert Andrews denied the charge. He said there has been a change in kidney function, but it has been reversed by halting use of the drug.

"We know of no reason why removal of the drug from the market is appropriate as long as physicians have proper prescribing information," Mr. Andrews said.

Diazinon Hit by EPA

Environmental Protection Agency last week cancelled the use of the pesticide diazinon on golf courses and sod farms, based on data which show that exposure to the chemical applied on these sites results in "unreasonable risks" to birds.

Ciba-Geigy Corporation, the main US producer of the pesticide, plans to ask for a hearing on the EPA order before an administrative law judge.

The company said EPA ignored its efforts to resolve the agency's concerns on a scientific basis, and accused the agency of acting in an "inefficient, adversarial" manner.

A company spokesman said golf course and sod farm applications represent about 6 to 8 percent of Ciba-Geigy's diazinon business. Diazinon is also applied to home lawns, fruit and nut trees, vegetables and some field crops.

An estimated 512,000 pounds are used annually on golf courses and 60,000 pounds are used on sod farms.

EPA says it received reports of approximately 60 bird kills in 18 states in which diazinon was either confirmed or implicated as the primary cause. The kills involved 23 species of birds, including migratory and non-migratory waterfowl, songbirds, shore birds, wading birds and others.

Most of the reported bird mortalities were associated with large grassy open sites such as golf courses, which are preferred feeding sites.

FOIA Limit Wins Approval; Drug, Chemical Protection Seen

Industry-backed legislation amending the Freedom of Information Act to establish new procedures when an FOIA request is made for confidential business information was approved by the House last week.

The proposal, offered by Rep. Glenn English, (D-Okla.), was supported by chemical and pharmaceutical companies that believe present law makes them vulnerable to disclosure of trade secrets.

Public interest groups and others who frequently make FOIA requests unsuccessfully opposed the bill, contending it will significantly delay the release of information and could limit access to some business information completely.

"I want to emphasize that this legislation is strictly a procedures bill," Rep. English told lawmakers on the House floor. "It will not permit agencies to withhold any information currently made public. The bill only modifies the procedures used by agencies in making disclosure decisions."

Chemical Specialties Manufacturers Association says the bill provides companies with "fair and certain" protection and corrects "serious procedural ambiguities" in the current statute.

"If US businesses are to remain competitive in international markets, they need to be able to protect information concerning their product developments, designs, forecasts and plans," says Jack Pulley, managing counsel of Dow Corning Corporation.

For small businesses, he adds, the need is especially critical since their success or failure depends on only a few products.

Under the new procedures, when an outside interest makes an FOIA request for information which has been designated as confidential by the business which submitted the information, the agency must notify the submitter to allow the business to object to disclosure.

An agency would be given five days to notify the submitter that an FOIA request has been made, and the submitter would be allowed up to 10 days to file objections. The agency then has 10 days to determine whether to comply with the request.

If an objection to disclosure has been made, the agency must wait 10 additional days before releasing the information. Under specified circumstances, these time limits could be shortened.

The agency would not have to notify the submitter regarding an FOIA request if the information was not designated as confidential; if the agency first determines that the request should be denied; if disclosure is required by law or regulation; if the information is already public; or if the agency determines that the information is not confidential, despite its designation.

OILS, FATS & WAXES

Coconut Oil Market Stronger; Dealer Activity Boosts Pricing

Coconut oil is trading at some of the highest prices seen in two months. The strength of the market is considered to be the result of dealer activity, rather than a high level of consumer interest. Starting in late July, coconut oil began its latest plunge, falling steadily for about a month. The price reached a low of 12½ cents in mid-August, and since then it has been slowly creeping back up.

In recent weeks, though, prices have undergone a noticeable upsurge. Sources attribute this largely to extensive short covering by dealers. One trader feels that the dealer buying was spurred by origin producers buying back some of their material. Subsequent short covering, he says, has sustained the rally.

Despite the brisk level of trade, interest among end-buyers remains low. "Most of the consumer interest is for forward positions; they don't need spot oil right now," says an industry source. He goes on to say that "consumers are just going to sit back and wait for the rally to end."

CONSUMER BUYING DOWN

Other traders agree that consumer buying is down. "Most big (end use) buyers are well covered; there is not a lot of activity going on out there," says one industry source.

Consumers seem confident that the firming in the market will prove temporary, and that coconut oil supplies will not disappear while they wait for prices to drop.

Total US stocks of coconut oil at the beginning of August stood at 124,000 metric tons, according to Bureau of Census figures. This was down from the 125,000 ton figure recorded for the first of July.

At the same time, US imports soared from 36,400 tons in June to 64,000 tons in July, according to Foreign Agricultural Service. August import figures are not yet available.

This leap upward in imports reflected a need to replenish stocks in the US at a time when both dealers and end consumers were low on material, a source says.

As far as the probable duration of the firming trend is concerned, traders are unable to agree. One buyer feels that, although the market may not fall considerably from where it is now, the market is "as strong as it's likely to get," he says.

On the other hand, another dealer believes that a strong coconut oil market is here to stay, at least for a while. "The coconut oil market has already bottomed out; the previous lows that we saw before are now historic," he asserts.

VEGETABLE OILS

COTTONSEED OIL — Traders have begun to see some strengthening in the cottonseed oil market, which is said to be following firming trends seen in world prices of coconut oil and palm oil.

Traders feel that the price has gotten as low as it is likely to get in the foreseeable future. "The cotton price has bottomed out, and now it's starting to firm," say an industry source. Buying demand has been rather high, especially in export sales, sources say, while domestic buying remains hand to mouth.

Another highly relevant factor in the stronger cottonseed oil price is the promise of a reduced crop yield this year. "The crop is a lot less than we thought it would be," says a source, who cites insufficient rainfall in Texas as the main reason. Also, the "overall quality of what's out there will be a lot lower than last year's," according to another industry source.

PEANUT OIL — The peanut oil market is softening as buying interest remains low. The market has been weakening steadily over the past few weeks as consumers have become more confident that there will be no serious shortage of oil from the new crop.

"The new crop is currently being harvested, and we anticipate having peanuts for crushing within three to four weeks," says one industry observer, who cites this as a probable reason for the absence of customers at present. In the meantime, there is "plenty of oil available" now, says another industry observer.

TALLOW — The tallow price is still on the rise, fueled largely by spot interest and buying on positions through October. The short-term buying being done by dealers is said to be the result of good domestic demand, as well as covering of outstanding foreign sales.

The market is in the midst of a short supply situation whose cause is not readily known. "No one knows the reason for the short supply," says an industry source, who says that the contending theories of lower production and dealers withholding material have not been resolved.

The source says that buying interest is especially strong on the part of animal feed business, which is up considerably over last year's. Despite good demand and firm prices, though, offers remain hard to come by, according to industry sources.

PRICES TRENDLINES

WEEK ENDING SEPT. 26, 1986

CHANGES/UP

Coconut oil, NY, 1c. per lb.
Corn oil, Midwest, 2c. per lb.
Cottonseed, 41% bulk, Memphis, $5 per ton
Grease, white, choice, tanks, dlvd., NY, ½c. per lb.
Grease, yellow maximum 10%, ffa tanks, ½c. per lb.
Lard, loose, bulk tanks, Chicago dlvd., 1c. per lb.
Palm oil, NY, ½c. per lb.
Peanut, 50% bulk, SE, $5 per ton
Soybean, 44% bulk, Decatur, $6.50 per ton
Soybean oil, Decatur, .70c. per lb.
Tallow, inedible, fancy, tanks, dlvd., NY 1c. per lb.
Tallow inedible, bleach., tanks, dlvd., NY, 1c. per lb.

CHANGES/DOWN

Cottonseed oil, Valley, ¼c. per lb.
Peanut oil, Southeast (restricted), 1c. per lb.

OILS, FATS INDEX

The Oils, Fats & Waxes index reflects the prices of 11 representative materials in this sector and the quantity of each produced in 1985.

Sept. 26, 1986	81.59
Sept. 19, 1986	78.47
Aug. 29, 1986	83.06
Sept. 27, 1985	83.26

Chemical Prices Start on Page 32

FRIDAY SPOT PRICES

MARKET CLOSE SEPT. 26, 1986

CRUDE VEGETABLE OILS

Coconut oil, NY	lb.	.14½
Coconut oil, Pacific	lb.	.NA
Corn oil, Midwest	lb.	.19
Cottonseed oil, Valley	lb.	.14
Linseed oil, Minneapolis	lb.	.26
Palm oil, NY	lb.	.12
Peanut oil, Southeast (restricted)	lb.	.27ask
Soybean oil, Decatur	lb.	.14

REFD. VEGETABLE OILS

Coconut oil, Lw., NY	lb.	.19¼
Corn, jumbo tanks	lb.	.2580
Cottonseed oil, jumbo tanks, NY	lb.	.34½
Peanut oil, jumbo tanks, NY	lb.	.34½
Soybean salad oil, NY	lb.	.1920

OILMEALS

Cottonseed, 14% bulk, Memphis	ton	$130
Linseed, extracted, 34% bulk, Fargo	ton	$95
Peanut, 50% bulk, SE, Alabama	ton	$165
Soybean, unrest., 44% bulk, Decatur	ton	$183.50

FATS & GREASES

Grease, white, choice, tanks, dlvd., NY	lb.	.10½
Grease, yellow maximum 10%, ffa tanks	lb.	.9
Lard, loose, bulk tanks, dlvd., Chicago	lb.	.15
Tallow, inedible, fancy, tanks, dlvd., NY	lb.	.12
Tallow, inedible, bleh., tanks, dlvd., NY	lb.	.11¾

Chemical Finance

Carbide Making Second Rights Payment of $3.22

Union Carbide Corporation, Danbury, Conn., will distribute a second payment of $3.22 per right on October 14, following the distribution of $30 that the company made on July 30. Another 85 cents may be distributed later, depending upon a court ruling. The distribution represents funds received from sale of most of the company's consumer operations.

Fiscons Buying ARL for $66 Million

Fiscons, a large drug and agricultural products concern headquartered in England, is expanding its scientific instruments business with an agreement to purchase Applied Research Laboratories (ARL), a US company, for about $66 million. ARL is a privately owned company with manufacturing plants in Switzerland and California.

Natural Gas Demand Has Broad Potential

Demand for natural gas in the US could range between 19.2 trillion and 26.8 trillion cubic feet by the year 2000, depending on economic and regulatory factors, according to a study by the American Gas Association. The broad range reflects possibilities in energy use legislation, competitive market structures and many other factors, AGA said.

Pharmacia Acquires Stake in Electro-Nucleonics

Pharmacia, the Swedish pharmaceutical and biotechnology group, has acquired percent of the shares of Electro-Nucleonics Company in the US and will seek a majo interest. Under a contract, Electro-Nucleonics also will have exclusive rights to di tribute certain Pharmacia products in the US.

Borg-Warner Lifts Dividend, Buys Shares

Directors of Borg-Warner Corporation, meeting at the company's Chilton subsidiary Dallas, Tex., authorized the repurchase of up to 15 million shares of the company's common stock, with funds to be provided principally from a continuing restructuring of Borg-Warner's business. Directors also raised the dividend on the common stock by cent per share to 25 cents. C.E. "Red" Johnson, president and CEO, noted that Chilton was acquired in June, and its York air conditioning subsidiary was spun off to shareholders.

Laser Industries Offering Debentures

Laser Industries Ltd., New York, has commenced the public offering of $20 million principal amount of 8 percent subordinated debentures due September 15, 2006, priced at 100 percent. The debentures will be convertible into the company's common shares at a conversion price of $14.895 per share. Drexel Burnham Lambert Incorporated is the sole underwriter of the offering.

USX Debt Is Placed on CreditWatch

The debt ratings of USX Corporation and two subsidiaries have been placed o Standard & Poor's CreditWatch with negative implications. The large steel and petroleum company is being pursued by aggressive investors, and is exploring various alternatives to merger that would provide comparable value to stockholders.

Abbey Medical Bought From Baxter Travenol

National Patent Development Corporation and VenTech SA, a wholly owned subsidiary of First City Gold Corporation, a Canadian company quoted on the Alberta Stock Exchange, have completed their leveraged buyout of Abbey Medical Inc. from Baxter Travenol Laboratories, Inc. National Westminister Bank USA provided leveraged financing. The transaction was announced by Jerome L. Feldman, president and CEO of NPDC, and Lord Beaverbrook, chairman of VenTech.

Sixty Abbey Medical retail centers were acquired by the purchasers and are expected to generate sales in excess of $75 million in 1986, bringing National Patent's total sales over $250 million on an annualized basis.

National Patent's principal subsidiaries and divisions are International Hydron, Acuvue Chaston, National Patent Dental Products and Interferon Sciences.

Air Products Acquires Separex from Parker

Air Products & Chemicals, Inc., has acquired Separex Corporation from Parker Drilling Company, of Tulsa, Okla. Separex, which has been manufacturing membranes for gas separation since 1980, has its primary facility in Anaheim, Calif. "Separex" cellulose acetate membrances are used to recover hydrogen from refinery off-gas.

Jim Sorensen, director of technology and development for Air Products' membrane systems department, said that the acquisition is another step toward the company objective of combining its gas processing and applications expertise with various supply technologies so as "to offer the best approach for a customer's particular requirement."

IMC Acquires Pitman-Moore from J&J

International Minerals & Chemical Corporation, Northbrook, Ill., has signed a letter of intent to acquire Pitman-Moore, a subsidiary of Johnson & Johnson. Pitman-Moore, headquartered in Washington Crossing, N.J., markets pharmaceuticals, biological, diagnostic and surgical products to the animal health market. Markets include all species of farm animals and household pets.

Donald E. Phillips, president of IMC's Animal Products Group, said the acquisition fits IMC's strategy of building its own animal products business. The Pitman-Moore acquisition broaden's IMC's product line and provides access to new technology and new commercial opportunities, Mr. Phillips added.

The sale is subject to execution of a definitive agreement and approval for directors of both companies.

Taiwan, Italy Have Strongest Outlook

Continued economic expansion appears ahead for Taiwan, Italy and four other major industrial nations, Conference Board reports in its International Economic Scoreboard. Taiwan continues to set the pace, with its leading index rising at an annual rate of 1 percent, followed by Italy, 11 percent; France, 8 percent; West Germany, 6 percent, the US, 3 percent, and Canada, 2 percent.

The leading index in the United Kingdom is not advancing at all, while in Japan the index is declining at an annualized rate of 1 percent, and in Australia, it is dropping by percent, according Edgar R. Fiedler, vice-president and economic counsellor of board.

In West Germany, prospects have significantly improved for the first time this year, Mr. Fiedler addded.

Phenol Producers Schedule 2-Cent Advance for October

Phenol producers, citing high feedstock costs and poor profit margins, say they are raising market prices by 2 cents per pound, effective October 1. Producers believe that market demand is strong enough to support the increase.

Feedstock cumene costs, reflecting the benzene market, have risen from a 13.5-cents-per-pound level in mid-Summer to 14.75 cents per pound. It is reported that some cumene suppliers are looking to get 15 cents per pound and higher for October.

One phenol producer says that phenol pricing in relation to cumene costs "is the worst it's been in recent memory." "Margins have suffered very badly the last six to seven months," he comments, a period marked by a mostly unsuccessful price initiative in July.

"Margins are very poor," says another producer, *noting that when feedstock prices fell* during the first half of the year, "everything was passed through." "The industry needs the 2-cent increase," he says.

USS THE PRICE LEADER

The price movement was initiated by USS Chemicals, which has been selling spot material at the higher price level this month. It is reported that there has not been a great deal of pre-buying activity.

While saying that the price increase is feedstock-driven, producers add that a healthy level of demand, improved from the first half of the year, should provide support for the higher price.

Output is said to have risen with stronger demand for bisphenol-A, a major end-market, and operating rates are estimated at 85 to 86 percent of capacity.

The phenolic resin market, which has not been strong most of the year, has shown some signs of picking up. Producers observe that demand typically tails off during the fourth quarter, but that the fourth quarter of 1985 was fairly strong.

Shifting trade patterns are seen as playing a significant role in the phenol market this year. Exports are flowing at a much heavier rate than last year, and imports have dwindled considerably.

"Imports are minor" this year, says a producer, with small amounts arriving on the East Coast from Spain, and in the Gulf from Mexico. Last year, Rumania, Brazil, and Italy are said to have been more involved in the market. Through July, imports totaled 5.6 million pounds, down 36 million pounds from the 41.6 million pounds imported during the same period last year.

US exports, driven by Far East demand, have grown to 100.5 million pounds through July from 60.3 million pounds during the same period of 1985, a 40.2-million-pound increase. Producers say the weakening of the US dollar has been a major factor in the trade picture this year.

However, the restarting this month of a *60-million-pound*-per-year plant near Montreal, which has been idled since the first of the year, is expected to have a significant impact on the market, since it is estimated that the US has been exporting phenol to Canada at a 40-million-pound-per-year rate.

It is believed that the producer has been building inventory this month, and that material will become available on the market around October 1. Seller aggressiveness and customer loyalty cannot be determined in advance, producers say, though they point out that, because the plant is *old, its* competitiveness may be restricted.

PRICES TRENDLINES

WEEK ENDING SEPT. 26, 1986

CHANGES/UP

None

CHANGES/DOWN

None

AROMATICS INDEX

The Aromatic Organics index reflects the prices of 14 representative materials in this sector and the quantity of each produced in 1985.

Sept. 26, 1986	167.84
Sept. 19, 1986	167.84
Aug. 29, 1986	167.84
Sept. 27, 1985	167.84

Chemical Prices Start on Page 32

BTX — Spot benzene pricing weakened for the second consecutive week to an 81c. to 82c. per gallon range. The market had reached an 84c. per gallon level around mid-month.

The decline has quieted talk of a possible upward adjustment in contract pricing for October 1. The present contract level is 85c. per gallon.

Industry sources say that heavy buying activity during August and early September, when prices were rising, has resulted in a buildup of consumers' inventory levels.

Major end-market styrene is still advancing, but purchasers have not been active of late. It is expected that inventories will be sufficiently worked off for activity to pick up in early October.

Market sources report a shift in benzene trade patterns that should work to producers' benefit. During the first half of the year, substantial amounts of benzene were flowing into the US and providing some pressure on pricing.

Since the beginning of August, however, it is said that imports have lessened, a trend attributed in part to the weakening of the US dollar.

Spot toluene was quoted last week in a range of 68c. to 69c. per gallon, down from 71c. to 73c. per gallon the previous week. Sources cite weak gasoline pricing as being a *factor in the decline. Spot* xylene has been holding steady at 75c. per gallon.

MELAMINE — Producers say that a decline in import pressure, coupled with fairly healthy domestic demand, has enabled pricing to hold firm in recent months.

Two overseas producers, one in Brazil and the other in Kuwait, were significant factors in the US market last year, but have not operated this year.

Although Saudi Arabian Fertilizer Co. has come on line in the meantime, "the Saudis have not filled the void," says one US producer, and the other comments that Saudi shipments "seem to be somewhat erratic." "I'm not sure they've established themselves," he adds.

Producers say they expect total imports this year to be at least 20 percent below 1985. Through July, imports were 11 million pounds, as compared with 15 million pounds last year, a decline of 26 percent.

Domestic producers attribute the lessening of import pressure in part to the weakening dollar. The US market has become less attractive to overseas producers, they say, and note that product pricing in the US is lower than in any other producing country. Producers say that, overall, the global market has snugged up this year, and that strong Far East demand has been a major factor.

Domestically, the two largest market segments, laminates and coatings, are said to be doing fairly well. The construction area has been performing "reasonably well," and the automotive area has been doing "reasonably well," although it has softened up a big recently, says one producer.

AROMATIC ORGANIC IMPORTS: JULY

CENSUS BUREAU REPORTS ON THE TOP 24 AROMATICS.

		JULY		JUNE	
		QUANTITY	$ VALUE	QUANTITY	$ VALUE
Alkylphenols	lb.	261,022	751,652	72,400	135,459
Aniline	lb.	—	—	—	—
Benzene	gal.	23,033,528	17,115,644	20,067,228	14,214,465
Benzoic acid	lb.	294,602	187,183	95,422	63,319
Coaltar*	lb.	25,340,182	1,644,362	2,265,728	236,242
Creosote oil	gal.	58,472	34,821	1,876,103	1,064,662
Cresols, o-, m-, p-	lb.	510,807	359,255	302,053	191,934
Cumene	lb.	51,679,371	6,055,673	46,207,829	5,523,523
Cyclohexane	lb.	4,780	6,186	11,579	3,344
Cyclohexanone	lb.	—	—	—	—
Fumaric acid	lb.	114,640	44,536	120,699	59,797
Maleic anhydride	lb.	411,168	170,230	545,291	232,599
Melamine	lb.	1,255,040	497,466	1,309,547	464,829
Naphthol AS & derivatives	lb.	496,989	363,107	299,279	223,354
Phenol	lb.	532,773	90,754	503,582	61,546
Phthalic anhydride	lb.	1,063,445	210,265	305,851	64,790
Picolines	lb.	253,554	208,103	216,489	306,169
Styrene monomer	lb.	21,906,479	2,631,562	11,727,063	1,549,690
Toluene	gal.	15,254,070	9,406,296	15,390,417	21,004,756
Vat blue 1	lb.	433,104	457,932	723,721	614,631
Xylene	gal.	9,240,121	6,309,122	4,150,757	2,929,041
o-Xylene	gal.	2,417,949	2,003,266	190,141	[illegible]
p-Xylene	gal.	5,669,061	7,750,079	3,153,774	[illegible]
Xylenols	lb.	11,023	33,256	1,063,445	[illegible]

*Includes pitch of coaltar, blast furnace, tar oil, etc.

GE Plastics Expands 'Ultem' Resins Plant

General Electric has completed $75 million worth of expansions at its Mt. Vernon, N.Y., "Ultem" *polyetherimide resin facility*, the firm announced last week. The newly-integrated manufacturing facility, which GE claims is the largest high-performance plastic facility in the US today, includes separate monomer production, polymerization, compounding and water treatment plants, as well as computerized processing and quality control, and air quality control facilities. The existing "Ultem" resin facility will be maintained as a semiworks plant for research and development projects.

GE introduced the resin in 1982; it is said to provide high heat resistance, low smoke generation and excellent chemical resistance and electrical properties for use in aircraft, packaging, electrical and automotive applications.

ALIPHATIC ORGANICS

P&G Glycerine

Continued from Page 7

longer view and contends that "this sharp increase in P&G's capacity for refined glycerine supports our long-term commitment to grow in the refined glycerine business."

In fact, the market may now be ready for some increased domestic production. Shell Nederland Chemie BV has exited the glycerine market as of the second quarter this year. The company has closed its 25-million-pound-per-year synthetic glycerine facility and reportedly sent its last shipment of glycerine to the US as of July.

According to industry sources, this will reduce US imports on the order of 10 percent annually.

In addition, stronger pricing in Europe starting in the third quarter of this year and falling prices in the US has reduced profitability for exporters to the US and is expected to dry up what had been a surge in imports early this year. "The glycerine market has been weak this year," says one US producer, who asserts, "with a soft market imports will fall."

So far in 1986 imports through July have expanded relative to last year by 11 million pounds with a total of 32.8 million pounds. But sources note that imports since the second quarter have "stabilized."

RAW MATERIAL PRICE DECLINE

Aiding the decline in pricing has been the decline in raw material coconut oil and tallow pricing. One year ago tallow was selling between 17 cents and 19 cents per pound. Now its market value is about 12 cents per pound. Also, tallow has seen a decline of about 35 cents per pound in the last year to its current level of 14 cents per pound.

Refined glycerine prices have dropped about 10 cents per pound in the same period, with current levels for 99.5 percent purity material as low as 75 cents per pound.

However, crude oil pricing has declined steeply during the year and may provide an incentive to synthetic glycerine producers, including Shell Chemical Company, with mothballed units to reassess production economics.

"With crude prices down, synthetic glycerine producers may consider restarting their operations says one observer. He asserts that natural glycerine producers have to be prepared to compete with potential reentries by synthetic glycerine producers. At the moment, Dow Chemical with 110 million pounds of annual production capacity at Freeport Texas is the only manufacturer by synthetic process.

Producers using natural raw material have undergone significant process improvements according to Constantine Miserlis of Badger Engineers Inc., Cambridge Mass. In total, yield has been improved by 5 to 10 percent and purity has been enhanced to the point were 90 to 95 percent of material produced attains 99.5 percent purity compared to only 75 percent of output reaching this level five years ago. Mr. Miserlis adds that the most significant improvement has been a 50 percent reduction in energy consumption in the average natural production facility over the last five years.

Procter & Gamble has "rebuilt all their plants in the last five years," according to one competitor who adds that "just about everybody has revamped their distillation capacity."

Recent activity in facility improvement has led to speculation that most of Procter & Gamble's announced capacity increase may already be in place. A Procter & Gamble spokeswoman maintained, however, that the new capacity remains to be implemented.

PRICES TRENDLINES

WEEK ENDING SEPT. 26, 1986

CHANGES/UP
None

CHANGES/DOWN
None

ALIPHATICS INDEX

The Aliphatic Organics index reflects the prices of 20 representative materials in this sector and the quantity of each produced in 1985.

Sept. 26, 1986	222.80
Sept. 17, 1986	222.80
Aug. 29, 1986	222.80
Sept. 27, 1985	203.80

Chemical Prices Start on Page 32

METHYLENE CHLORIDE — Atochem Inc. will follow other major producers of methylene chloride with a price increase of 2c. per pound scheduled for October 1, or as contracts permit. The company says that the increase is needed to "improve margins for methylene chloride which have been severely depressed in recent times as a result of declining market prices caused by a weakening in demand for this chemical." Other producers who have announced similar increases are Occidental Chemical, LCP Chemicals and Plastics, Dow Chemical Company and Vulcan Materials Company.

SILANES — Dynamit Nobel Chemicals, Silanes-Silicons Group says it will increase the price of its organo-functional silanes by 4 to 6 percent on November 1. Also the company says it is moving from a delivered pricing basis to free on board pricing at that time.

According to Barry Arkles, general manager of the Silanes-Silicones Group, strong

ALIPHATIC ORGANIC IMPORTS: JULY

BUREAU OF CENSUS FIGURES FOR THE KEY ALIPHATICS

	JULY		JUNE	
	QUANTITY	$ VALUE	QUANTITY	$ VALUE
Acetic acid.....lbs.	79,884	41,764	8,894,558	575,200
Acetic anhydride.....lbs.	39,306	8,533	—	—
Butadiene.....lbs.	66,281,243	9,836,527	24,062,281	2,867,078
Butanol.....lbs.	2,014	4,716	—	—
Chloroacetic acid.....lbs.	3,871,328	1,151,557	2,365,443	761,338
Ethanol (industrial).....gals.	4,313,322	3,877,164	5,430,511	4,786,858
Ethanolamines.....lbs.	166,221	44,099	182,689	148,451
Ethyl acrylate.....lbs.	4	1,439	6,285	6,383
Ethylene glycol.....lbs.	42,276,703	6,793,814	32,358,114	4,852,048
Formic acid.....lbs.	152,900	41,492	1,181,421	199,399
Glyoxal.....lbs.	2,471,486	792,033	166,181	55,806
Hexamethylenetetramine.....lbs.	115,525	34,428	70,133	23,496
Lactic acid.....lbs.	1,811,811	955,910	895,852	544,770
Methanol.....gals.	—	—	13,415,460	2,823,178
Methylene chloride.....lbs.	3,801,343	867,820	1,386,719	331,497
Methyl ethyl ketone.....lbs.	1,867,724	342,027	5,162,724	769,046
n-Methyl-2-pyrrolidone.....lbs.	35,291	44,142	35,700	44,329
Octanol.....lbs.	—	—	—	—
Oxalic acid.....lbs.	1,838,996	395,990	1,644,113	384,648
Pentaerythritol and di-PE.....lbs.	1,441,632	807,979	854,785	533,274
Perchloroethylene.....lbs.	29,158,267	4,590,679	5,477,965	1,009,141
Propylene oxide.....lbs.	2,002,760	753,507	1,777,382	689,493
Sorbic acid.....lbs.	791,800	1,867,856	361,500	867,647
Tetraethyl lead.....lbs.	—	—	—	—
Trichloroethylene.....lbs.	5,360,733	914,519	1,867,809	272,448
Vinyl acetate, unpolymerized.....lbs.	—	—	—	—
Vinyl pyrrolidone.....lbs.	279,567	494,869	220,964	568,533

ALIPHATICS

demand and rising production costs in the US have prompted the company to raise its selling levels.

Fifteen compounds are affected. Current selling prices range from $3 to $20 per pound depending on the chemical.

Three major chemicals affected are aminopropyltriethoxysilane currently listing at $7.50 per pound, methacrylpropyl trimethoxysilane listing at $11.45 per pound and vinyltrimethoxysilane listing at $5.75 per pound. The above prices are for quantities in excess of ten drums.

According to Mr. Arkles, the domestic organo functional silanes business is currently valued at $50 million to $70 million in sales annually. The materials are used as coupling agents and chemical intermediates.

Pfizer Cites Kahn For Diabetes Work

C. Ronald Kahn of the Joslin Diabetes Center in Boston has been named the sixth recipient of the Pfizer Biomedical Research Award, which will provide unrestricted research funding of $500,000 over the next five years.

Kahn is a Mary K. Iaccoca Professor at the Harvard Medical School, and is research director of the Joslin Diabetes Center, which he joined in 1981. His research efforts concern the potential causes of Type II, or noninsulin-dependent, diabetes.

Announcement of the award was made by Barry M. Bloom, president of Pfizer Central Research, who said "the award will support Dr. Kahn's work in understanding the causes and consequences of diabetes."

Research led by Kahn at the center is exploring insulin/insulin receptor interactions, and is uncovering information concerning Type II diabetes.

DRUGS & FINE CHEMICALS

Penicillin, Ampicillin Prices Firm As Cephalosporin Demand Rises

Penicillin prices have firmed throughout 1986 in a continuation of a trend that began near the end of third quarter 1985. However, observers say that pricing, which has risen mainly because of tight supply, could level off soon.

"The market has calmed down considerably," claims one source. He says that prices are still on the rise, but doesn't think they will continue to increase at the rapid pace of 1986's first three quarters. This source estimates price to be about $25 per billion units (bu), while another industry observer claims pricing is higher, between $25 and $30 per bu. "It's hard to buy (penicillin) at $26 or $27," he says.

These prices are about twice the $12 to $15 per bu prices of mid-1985. The falling dollar is said to have had something to do with the situation, because some penicillin is imported. However, tightening supply as a result of increased demand is generally agreed to be the major market catalyst.

"Demand hasn't really slacked off," claims an observer, who also says that for a short time this year, "demand couldn't be satisfied." Some players cite the semi-synthetic penicillin derivative cephalosporins as leading the demand surge.

During the penicillin slump of 1984 and part of 1985, some penicillin players became involved in that segment of the market, where opportunities were perceived as being greater. As crude penicillin G salts were used more for this purpose supply lessened, because much penicillin G raw material is needed. Other factors which have reportedly increased demand are a booming animal penicillin market, a desire to contain medical costs by using relatively inexpensive penicillin, and some new export opportunities.

PRODUCERS PUSHING EXPORTS

Despite the tightness, supply is not so low as to cause customers to go without penicillin for lengthy periods of time. "No," says one source, "We're careful about accepting orders," because of the tightness. However, it is reported that inventories are not large.

Exports are slightly down through July, but it's noted that domestic producers are strongly seeking to beef up that market segment. Through July, 27.8 million pounds of penicillin G salt were exported, including more than 15 million pounds in July. Through July 1985, 29.5 million pounds were exported.

Among the new export opportunities alluded to above is Bulgaria. While no penicillin G salts were exported to Bulgaria through July 1985, more than 12 million pounds have been sent to the country through July 1986, making Bulgaria the leading importer of US material, importing nearly three times that of the second largest purchaser, Sweden. In July 1986 alone, Bulgaria imported 9.6 million pounds of the G salts.

India and Taiwan are increasing imports as well. Only Mexico has substantially reduced its imports of penicillin from the US. Through July, Mexico had imported less than 500,000 pounds from the US. Last year, Mexican imports totalled more than 18 million pounds.

Ampicillin is also suffering from tight supply, and a source complains, "there's no change in sight." Cephalosporin demand is said to be contributing to this, because it is diverting a lot of material. Also, the price of the precursor 6-APA is high, which makes the conversion to ampicillin unprofitable.

Ampicillin prices are estimated between $85 and $100 per kilogram, up from between $78 and $83 per kilogram at the beginning of 1986. The precursor's price is about $90 per kilogram, or nearly the same as ampicillin. Ampicillin exports are down considerably, to less than 1.6 million pounds through July, down from 2.2 million pounds through July 1985.

HFCS — High fructose corn syrup producers say prices rose all Summer and reached higher levels than in recent peak seasons. Now, as the slow season approaches, prices should begin to soften.

"It was a very firm market this Summer," sums up one producer. "Prices were higher in the third quarter than in previous years....All in all, pricing was higher from a margin standpoint, largely because of supply."

Supply was considered tight throughout the season, because of an increased beverage requirement. This hasn't led to capacity increases, although one producer comments that some suppliers may debottleneck next Summer, in order to produce more HFCS without having to expand capacity.

Current pricing, according to one producer willing to quote prices, is as follows on a 100-pound basis: For 42 percent HFCS on a wet basis, $12.80 to $13.30 less two percent f.o.b. For 53 percent HFCS on a dry basis,

PRICES TRENDLINES

WEEK ENDING SEPT. 26, 1986

CHANGES/UP
None

CHANGES/DOWN
None

DRUGS INDEX

The Drugs & Fine Chemicals index reflects the prices of 10 representative materials in this sector and the quantity of each produced in 1985.

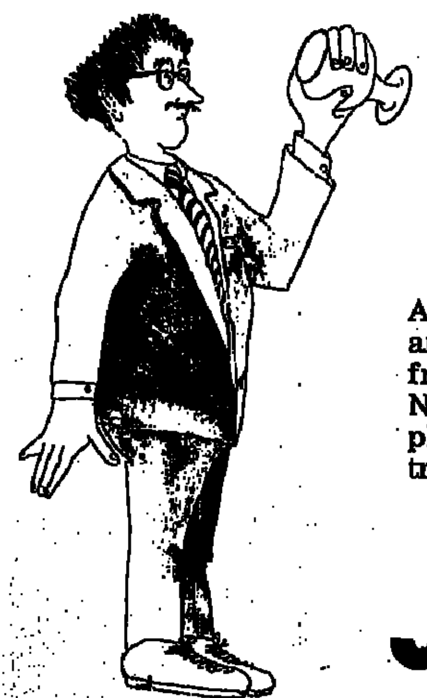
Sept. 26, 1986	211.16
Sept. 19, 1986	211.16
Aug. 29, 1986	211.16
Sept. 27, 1985	211.16

Chemical Prices Start on Page 32

BOTANICAL DRUG IMPORTS: JULY

CENSUS BUREAU REPORTS ON SELECTIVE BOTANICAL DRUGS.

		JULY		JUNE	
		QUANTITY	$ VALUE	QUANTITY	$ VALUE
Agar	lb.	116,242	1,087,368	125,196	716,390
Balsams, nat. nepf.	lb.	15,084	72,358	25,085	122,218
nat. styrex	lb.	43,343	118,952	—	—
nat. tolu	lb.	3,307	18,272	13,683	57,837
Crude animal glands, organs and parts	lb.	40,902	50,401	109,065	129,025
Ginseng roots	lb.	3,631	164,498	3,004	101,244
Ginseng, adv.	lb.	14,178	267,756	37,430	347,158
Glycosides	lb.	29,453	450,153	2,210	44,061
Gum, Arabic	lb.	582,704	1,076,969	446,760	578,340
Gum, Guar, net	lb.	5,869,472	2,911,425	6,093,393	3,390,241
Gum, Locust Bean	lb.	399,173	2,183,503	650,735	3,836,006
Gum, Karaya, nat.	lb.	161,864	141,526	221,752	131,837
Gum, Tragacanth, nat.	lb.	832	6,596	20,672	116,196
Licorice root	lb.	6,308	4,494	6,620,492	1,893,790
Natural crude drugs, bile, other animal secretions	lb.	—	—	—	—
Natural crude drugs, nepf.	lb.	513,996	4,243,730	698,763	1,720,007
Natural adv drugs, animal origin, nepf.	lb.	12,464	40,310	3,060	72,597
Natural adv drugs, misc.	lb.	336,591	1,775,271	571,639	1,327,729
Pectin	lb.	258,282	1,002,362	490,407	1,587,566
Poppy straw extract	lb.	—	—	—	—
Psyllium seed husks	lb.	987,071	966,740	507,266	611,675



DRUGS & FINE CHEMS

the price is between \$19.85 and \$20.50 less two percent f.o.b.

HFCS contracts are currently being examined by the Commodities Futures Trading Commission, the governmental regulatory body. A spokesman for the Minneapolis Grain Exchange says final approval of the contracts should come in about two or three months. He says the Commission has been studying the contracts for eight or nine months, and that approval or disapproval generally takes between 7 and 18 months.

KOLA NUTS — The price of kola nuts is between 50c. and 53c. per pound, according to a major importer. This represents a slight firming from the beginning of the year, and is attributed to rising costs, such as ocean freight expenses.

Despite the higher price, one source says "we have few customers" because of slackening demand. According to his estimates, demand has dipped about 10 percent since last year, and about 20 percent from two years ago.

No definitive explanation is given for the decrease in demand, although the source comments that kola extract cannot be used in increasingly popular caffeine-free soft drinks, and adds that there may be a tendency for diet soft drink manufacturers to shy from its use.

Because of the demand situation, supply is considered plentiful. Most of the kola nuts come from Africa, but a source says "there's plenty in Jamaica this year, too."

VITAMIN E — BASF Corporation recently published the results of two studies about tocopheryl nicotinate (vitamin E nicotinate) as a vasodilator (dilator of blood vessels).

According to BASF, the results of both tests indicate that tocopheryl nicotinate heals burns as well as methyl nicotinate, but without the same degree of redness or hot spots.

Tests were conducted measuring the subjects' blood flow. The greater the blood flow, the more likely that redness, or a hot spot, will occur. The first study involved five subjects, whose blood flow was assessed after their skin was heated with a metal plate equipped with a heater coil. Tested were tocopheryl at a 0.5 percent concentration, mixed with sunflower oil; methyl nicotinate at a one percent concentration, mixed with sunflower oil; and tocopheryl nicotinate at a two percent concentration, with no sunflower oil.

BASF says that 0.5 percent tocopheryl nicotinate with sunflower oil increased blood flow by 13.9 percent, while the one percent methyl nicotinate with sunflower oil increased blood flow by 20.13 percent.

BASF's spokesman continues that even the tocopheryl nicotinate without sunflower oil, at a two percent concentration, only increased blood flow by 17.58 percent.

Pigment Dust

Continued from Page 7

the only pigments that have undergone the new electrostat process," says Dr. Wriede. "Plans call for the gradual expansion of the list of commercially available treated products."

Eventually, the company says treated products will include the organic pigments that Heubach has been making since the company purchased the facilities and colorant line of E.I. du Pont de Nemours Co. two years ago.

"We expect the low-dust development to reverse the trend away from chromate pigments that has resulted from the need to meet OSHA dust restrictions," says Mr. Waldron. "The trend has been toward the use of organic replacements, which have been considerably more costly and generally less satisfactory in performance."

For the production of the new low-dust pigments an expansion/modernization of Heubach, Inc.'s inorganic pigment division has been completed and is on stream. The modernization included the installation of the "Electrostat" unit, completion of a 20-million-gallon-per-day waste water treatment facility, along with a 20-percent increase in capacity for chrome yellow and molybdate orange pigments.

McKesson

Continued from Page 9

the way to becoming an integrated nationwide distributor of a broad range of nondurable products and related services for people," Mr. Field commented.

Univar has agreed, upon completion of the transaction, to offer employment to all of the employees of McKesson Chemical. As required by law, employees covered by collective bargaining agreements will have both their employment offers and special pay arrangements controlled by such agreements, a spokesman for McKesson said.

The transaction remains subject to review by the Federal Trade Commission under provisions of the Hart-Scott-Rodino Antitrust Improvements Act.

McKesson Chemical has operations in 35 states of the Continental US.

The largest competitor of the merged company in chemical distribution will be Ashland Chemical Company.

Leaded Gas Banking Not Working, Dingell Says

Environmental Protection Agency's program for banking lead "may not be providing the benefits it was intended to achieve," says Rep. John Dingell (D-Mich.).

The program was initiated by the agency to lower the cost burden and provide flexibility for the gasoline industry in meeting more stringent standards for the lead content of gasoline.

In releasing a report by the General Accounting Office, Rep. Dingell says the failures appear to result from "insufficient and unreliable reporting practices, as well as inexplicably lax enforcement by EPA."

The report concludes a lengthy investigation by GAO which was initiated at the request of the House Energy and Commerce subcommittee on investigations and oversight, chaired by Mr. Dingell.

In a letter to EPA Administrator Lee M. Thomas, Rep. Dingell says "the program appears to be understaffed and poorly planned," and suggests that "with the program half over, EPA must catch up" in order to carry out the program's objectives and meet its obligations under the 1985 farm bill to monitor the actual lead content needed for farm machinery.

In March 1985, EPA issued a regulation significantly lowering the allowable lead content of gasoline which was aimed at reducing vehicular lead emissions into the atmosphere. EPA estimated that such a reduction would decrease the incidence of cardiovascular diseases, reduce automotive maintenance costs, and increase automobile fuel economy.

In order to ease the new financial burden carried by refiners and importers of leaded gas and to facilitate their transition to more stringent standards, EPA established a three-year "banking" program.

Under the program, producers and refiners that sold leaded gasoline in 1985 at a lower concentration than the required standard, could "bank" or obtain a form of credit for their unused lead rights. The refiners could then opt to use them at a later date or sell their rights or credits to other program participants who produced or sold leaded gas in excess of the new standard.

EPA's goal was to reduce concentrations of lead in the atmosphere without placing undue stress on any one refiner. The collecting or using of such rights is to be completed by the end of 1987.

According to GAO, the banking program has attracted a significant number of participants, and as of June 16, 1986, accumulated about 9 billion grams of lead "rights."

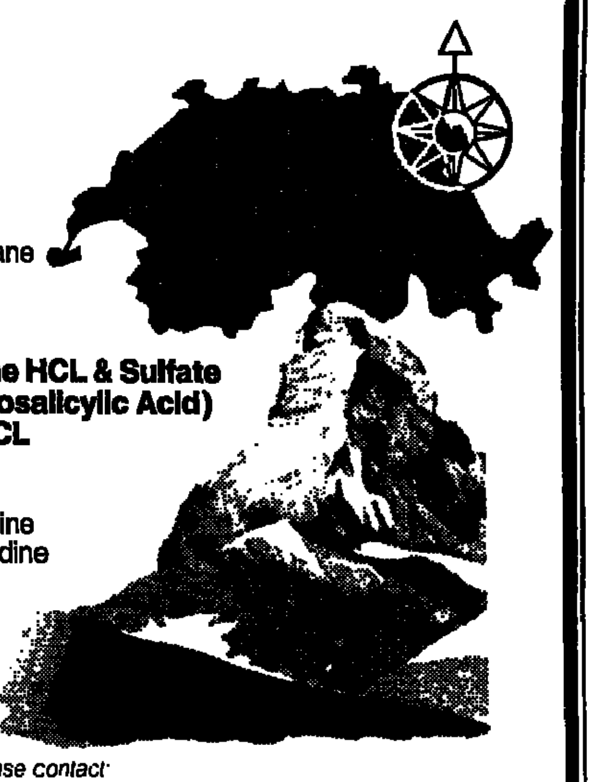
Under EPA's regulations, program participants are required to submit quarterly reports to EPA detailing, among other items, the total number of gallons of leaded gasoline produced and the average lead content of each gallon produced.

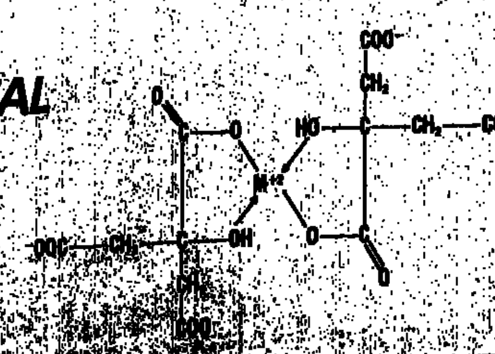
The reports must also cover the refiners' "banking transactions," such as the number of rights or credits accumulated and the amount transferred. EPA is responsible for overseeing the reporting process and enforcing violations against those who do not meet program requirements.

However, as of June 1986, GAO found that "EPA had not completed processing and reviewing reports for the first year of the program." Even though the period to claim lead rights ended last December, "EPA has no firm data on the balance of lead rights available for use in calendar years 1986 and 1987," according to the report.

The GAO also said that refiners' reports are replete with inaccuracies and discrepencies which "may have resulted in the use or transfer of invalid rights," and that the agency's failure to check or verify reports may lead to EPA reliance on incorrect data. This could result in the release of unlawful levels of lead into the atmosphere.

Even though GAO found several violations of the regulations, no enforcement actions had been taken at EPA.





Oil and Products

Continued from Page 5

annually. Lower prices will exert the largest impact on residual fuel oil demand, which will nearly double by the turn of the century.

U. S. crude oil production will fall 2.5 percent a year, from 8.9 MMBD in 1985 to 6.0 MMBD in 2000, and natural gas demand will decline in the near term and stabilize at lower levels within the next few years.

Overall U.S. energy demand will grow at a rate of 1 percent a year. Oil will supply more than half the increase; coal and nuclear will supply the rest.

In the year 2000, oil will account for 43 percent of total U. S. energy demand, compared with 42 percent in 1985. Natural gas will account for 19 percent, versus 24 percent in 1985.

On a free-world basis, oil demand will grow just over 1 percent a year through 2000. Oil will supply 42 percent of total energy requirements in 2000, compared with 46 percent in 1985. Oil consumption will rise to 53 MMBD in 2000, up from 45 MMBD in 1985.

Gasoline demand over the period is expected to rise by 1.5 MMBD. Demand for middle distillates — kerosene and diesel — will be the fastest growing. The share of world energy supplied by natural gas will remain constant at about 18 percent.

GROWING DEPENDENCE

Global dependence on OPEC oil will grow dramatically, says the report. Non-OPEC crude oil production will fall from 22.5 MMBD in 1985 to 18.5 MMBD in 2000. This trend will not be reversed by the anticipated rapid price rises in the 1990s. Exports from the Communist Bloc will end by the mid-1990s, and the region is likely to be a net importer by 2000.

Steady demand growth and the decline in OPEC oil supplies will lead to rapidly growing dependence on OPEC, whose share of world oil supply is expected to reach 60 percent by 2000, compared with 38 percent in 1985.

"In the past, direct government intervention in energy markets has led to economic distortions and inhibited attainment of a secure domestic supply of energy," the study points out. "Therefore, initiatives such as imposition of import fees on crude oil and petroleum products should be avoided."

The most direct method of improving energy security is to develop reserve capacity that can replace disrupted supplies, the report states. It recommends filling the Strategic Petroleum Reserve to the targeted level of 750 million barrels as quickly as fiscally responsible, and encouraging U. S. allies to develop similar petroleum inventory policies.

The study advocates local, state and federal tax policies that do not discourage investment in the development of domestic energy reserves. Among other changes, it recommends repeal of the windfall profit tax. The tax currently collects no revenue but still imposes an accounting burden on the oil industry.

Commodity Output

Continued from Page 7

companies, and he thinks that CPI firms will shift from marketing individual chemicals to selling entire systems.

Chemistry and chemical engineering will be redefined, he believes, so that, by the next century, CPI companies will be doing a lot of things that are not strictly chemical, as viewed by today's standards.

He also expects that there will be a new cycle of chemical innovation, and that there will be more chemical product lines, but that they will be smaller in volume. Finally, he suggests that higher profits will return to the industry.

Liability Rule Won't Change

Advocates of a uniform Federal product liability law gained a symbolic victory in the Senate Thursday night, but actual reform will have to wait at least another year.

After voting 84-13 in favor of considering a business-backed plan sponsored by Sen. Robert Kasten (R-Wis.), the legislation was pulled off the floor by Majority Leader Robert Dole (R-Kan.), in the face of a lengthy filibuster by opponents.

Noting that Congress intends to adjourn for the year October 3, Sen. Dole said the Senate did not have time for a long debate on the bill, which was designed to curb the skyrocketing cost of product liability insurance by limiting lawsuits against manufacturers.

Industry and insurance groups have been seeking such legislation, declaring that a crisis has been brought on by a glut of lawsuits and unreasonably high jury awards.

Trial lawyers oppose a Federal role in what has for decades been a state regulated issue. They say spiraling premiums were brought about by overly ambitious policy sales by the industry during the 1970s.

A revised proposal offered by Sen. Kasten last week dropped the controversial $250,000 cap on awards for pain and suffering contained in earlier legislation in an attempt to gain more widespread support.

Both proposals would encourage out-of-court settlements and penalize lawyers for frivolous complaints. They would also make it more difficult to sue manufacturers for punitive damages, and ensure that manufacturers could not be punished for following Federal laws.

The Reagan Administration supported the effort to reform product liability law, as well as a host of business groups including Chemical Manufacturers Association, US Chamber of Commerce, National Association of Manufacturers and the Business Roundtable.

Superfund Tax

Continued from Page 3

chemical feedstocks, and $1 billion from general revenues. The balance would come from interest and recoveries from parties held responsible for creating superfund dump sites.

In addition to a $2 billion broad-based corporate tax, the House plan included the $1.4 billion levy on chemical feedstocks, a $2.5 billion tax on petroleum, $1 billion in waste-end taxes, plus contributions from interest, recoveries and general revenues.

Two oil-state Senators — Russell Long (D-La.), and Lloyd Bentsen (D-Tex.), vowed to fight the House's proposal for heavy taxes on the oil industry.

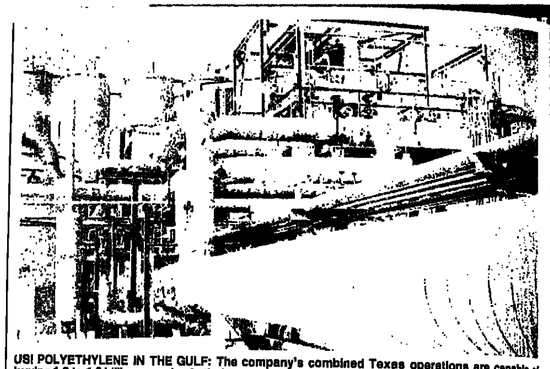
"You aren't going to make any money from them once they're gone," Sen. Long said, warning that further financial pressure might force more oil companies out of business.

Sen. Bentsen added that if the committee votes to significantly boost taxes on the oil industry, he would try to defeat the superfund conference report on the Senate floor.

"I will fight the reauthorization unless we get a more equitable distribution" of the taxes, he warned.

The all-but-certain inclusion of a broad-based tax raises another potential problem — the threat of a presidential veto. Treasury Secretary James Baker has said he will recommend that President Reagan veto any bill containing either a broad corporate tax or a substantial increase in taxes on oil and feedstock chemicals.

If the reauthorization bill is not passed by October 1, EPA's Mr. Thomas said he would begin sending 30-day termination notices to superfund contractors.



USI POLYETHYLENE IN THE GULF: The company's combined Texas operations are capable of buying 1.8 to 1.9 billion pounds of ethylene per year. Shown here is a high density polyethylene unit at La Porte, Tex. Capacity for HDPE at La Porte is rated at 550 million pounds. USI has 310 million pounds of HDPE capacity at Port Arthur, Tex.

USI at the Top

Continued from Page 3

growing Asian market. After a year's hiatus, Mr. Bauman predicts that China will again import large quantities of polyethylene next year.

USI itself has suggested that supplies of LLDPE and HDPE will fall short of projected demand by the early 1990's. The company says that the two resins will each grow 6 percent annually between now and 1992.

Without capacity additions, the company has forecast that shortages of LLDPE and HDPE may crop up by 1988, and that capacity may fall 30 percent below projected demand by 1992.

Interestingly, USI projects that demand for conventional LDPE, the product in which it will hold a truly dominant position once the Enron acquisition is completed, will remain static at 5 billion to 5.2 billion pounds between now and 1992.

However, Mr. Bauman points out that while demand for LDPE will remain flat, so will capacity, and operating rates are already over 90 percent. And, he suggests operating rates will further improve next decade as some older LDPE reactors are closed down.

In addition, Mr. Bauman notes that while LDPE units may be more expensive to operate than newer LLDPE plants, many are fully depreciated. Also, specialty grades of LDPE can only be produced in conventional reactors.

He says conventional high-pressure product will retain its market niche, and while large amounts of product will be displaced by LLDPE, large quantities of material will also be required to blend with LLDPE.

Mr. Baggett also notes that LDPE currently fetches a 2-cent-per-pound premium over LLDPE. So while LDPE may not appear to be a growth industry, observers point out that it can still be very profitable for USI.

Mr. Bauman says USI will gain several additional benefits from the Enron purchase. One is increased operational efficiency that can be gained from the combination. He says the longer product runs provided by combining the operations will reduce the output of off-specification material, while improving the quality of the product.

He also notes that USI will acquire a large quantity of ethylene capacity from Enron. The company has 1.7 billion pounds of ethylene capacity split between Clinton and Morris, and this total will improve self-sufficiency.

However, CMAI's Mr. Baggett says USI will remain the largest purchaser of ethylene in the US. The Tuscola, Ill. complex, with a 400-million pound ethylene cracker has enough of the olefin under normal circumstances, Mr. Baggett notes. But when the 66-million-gallon-per-year synthetic ethanol plant located there is running full out a 50-million pound ethylene deficit results. Mr. Baggett also estimates that Enron's Clinton plant is a net consumer of ethylene if the LDPE and HDPE unit are running at capacity. Following the installation of the "Unipol" LLDPE unit at Morris in 1984, that facility also fell into an ethylene deficit situation. The two Enron plants could require up to 100-million pounds of ethylene a year beyond what they make, he says.

USI's Gulf Coast operations at La Porte and Port Arthur, Tex. will continue to be enormous buyers of ethylene, Mr. Baggett says. The two facilities are capable of buying 1.8 billion to 1.9 billion pounds of ethylene per year, he says.

A major benefit of the Enron acquisition, according to Mr. Bauman, is USI's entree into the polypropylene market through Enron's 230-million-pound PP plant in Morris. Enron also owns an oriented PP film plant in Streamwood, Ill. that Mr. Bauman calls a "stand alone money maker."

While the Morris PP plant is not big, Mr. Bauman notes that 50 to 75 percent of the plant's output is copolymer material which carries a 6-to-10-cent-per-pound price premium over standard homopolymer. Polypropylene also enjoys the lowest raw material costs and highest selling prices among all polyolefins, he adds.

The Enron purchase also includes the company's ethylene oxide/ethylene glycol capacity at Morris, a product line that some analysts question whether USI will retain.

In August, Enron sold its branded products group, featuring "Peak" antifreeze to Old World Trading Company, Des Plaines, Ill. The product group consists mainly of EG-based antifreeze and coolant products for both retail and industrial sales.

As part of the agreement, 60 to 65 percent of the Morris EG output is committed to Old World. Analysts have questioned whether USI will be comfortable either with this arrangement, or with the EO/EG business at all. The company declined to comment on the future of the EO/EG operations.

The Enron Chemical purchase and the decision to divest its spirits and wines group will focus National Distiller's business operations on chemicals and propane marketing.

Last year, the company posted $729.6 million in petrochemical sales and $307.8 million in oleochemical revenues. Enron Chemicals sales, excluding the branded products group, totaled $530 million last year.

National's Suburban Propane unit, a nationwide marketer of propane gas, had sales totalling $571.6 million last year. The company's spirits and wines group posted $680 million in sales.

For its part, Enron says it wants to concentrate on its core businesses, natural gas transmission, oil and gas exploration and production, and liquids operations. Enron took its present name in April, 1986. The company was formed when Houston Natural Gas merged with Internorth last year.

Mutagen R&D Lack

Continued from Page 7

ble mutations are unknown; no evidence directly links chemicals or radiation with mutations in human germ cells. Experiments with insects and animals, however, have shown that some substances in agricultural, industrial, and pharmaceutical chemicals in use today cause heritable mutations in some lower animals.

Recent advances in molecular genetics have opened the door to new and innovative technologies that may offer a great deal more information about DNA. Because most of these technologies involve examining DNA directly, they represent a greater degree of sophistication and potentially a major advance in determining the factors that can cause mutations.

The techniques now used embody more general and indirect approaches that rely on the clinical manifestation of disease, major changes in chromosome number or structure, or biochemical changes in certain blood proteins, none of which offers specific information about the variety of mutations that can occur, their frequency, or their causes.

The emerging technologies may provide reasonable and verifiable ways of detecting new mutations in human DNA and proteins, but they are not yet efficient enough to be used on a large scale.

With continued suppport, OTA says, some of the new technologies described in the report, or derivatives of them, could be available in the next five to 10 years for large-scale use. OTA points out that their ultimate application in epidemiologic studies to determine rates and patterns of mutations will be complex, requiring the collaboration of a large number of scientists.

PERFUMES & FLAVORINGS

Synthetic Hydroxycitronellal: Spot Prices Are Holding Steady

Spot prices of synthetic hydroxycitronellal have been holding steady at \$5.50 to \$6 per pound, despite rising imports from Europe. Imports through July totaled 250,467 pounds, exceeding the full-year 1985 figure by 55,000 pounds.

Most of the imported material is from West Germany, 143,320 pounds, comprising over 57 percent. The United Kingdom has exported 34 percent, or 85,803 pounds. Trade sources report no new usages for the perfuming compound and no substantial increase in demand.

An aroma chemicals importer asserts that domestic producers of synthetic hydroxycitronellal are losing market share to foreign material. "Due to the fact that the domestic manufacturers are no longer competitive enough to hold their share of the market, imports are increasing," he says.

It is also noted that the weaker US dollar makes imported material more competitive here.

Domestic producers, however, deny that they are losing market share to importers. "We have not seen any change in our market; it has been a straight line for the past three years," says one producer.

A domestic producer points out that Proctor & Gamble and International Flavors & Fragrances have switched compounding activities from Europe to the US, increasing the US requirement for synthetic hydroxycitronellal.

An aroma chemicals broker suggests that experimental compounds from smaller importers may be enjoying a rapid turnover. "The market shares of some importers could be up because of the success of their most recent compounds." In contrast to this, he says, "the annual requirement of the larger companies is down."

ESSENTIAL OILS

INDONESIAN OILS — Indonesia devalued its currency, the rupiah, more than 25 percent September 12, down from 1,132.5 rupiahs per dollar to 1,640.2. The currency devaluation affected Indonesian exports less dramatically than it did the domestic economy.

"When other countries devalued their currencies, such as France, the percentage of decline meant a similar decline in prices," said an essential oils importer. "Indonesia's, however, is for internal consumption only." Most prices for essential oils from Indonesia, therefore, remained static.

The higher priced oils did feel the effect of the devaluation, falling in line with the rest of the market. According to a US essential oils broker, "there has been a slight weakening of those essential oils that had been pushed up artificially, the more expensive ones." The importer agrees: "The devaluation of the rupiah combined with the ready availability of the material led to their decline."

Examples of inflated oil prices that fell are nutmeg, patchouli and cloveleaf. Nutmeg oil is down from \$33 per kilo, cost and freight, New York on September 12 to \$30 per kilo September 22. Patchouli oil prices also fell during the same period from \$22 per kilo cost and freight, New York to \$19.50 per kilo.

Cloveleaf oil recorded a marginal decrease of 15c. per kilo, cost and freight, New York because, though its original price had been driven up, its ready availability is not as great as the other oils.

Another oils broker regards the stabler oils from Indonesia as unaffected: "Those oils that have been firm and not in ready supply were not affected." He includes citronella oil, sandalwood oil and Javan vetyver oil among them.

BLACK PEPPER — In spite of the Indonesian currency's devaluation, Lampong black pepper prices firmed 5c. per pound in the last two weeks to \$2.08 per pound.

Two reasons given were an abnormally small crop, 7,000 tons in comparison to an average of 12,000 to 13,000 tons, and soft pricing prior to the crop's harvesting.

PRICES TRENDLINES

WEEK ENDING SEPT. 26, 1986

CHANGES/UP

Caraway Seed, Egyptian, 2c. per lb.
Cardamoms, Indian bleached, 25c. per lb.
Citronella Oil, Javan, 20c. per kilo
Cumin seed oil, \$15-\$20 per kilo
Fennel seed, Indian Recleaned, 7c. per lb.
Laurel leaves, Turkish semi-select, 40c. per lb.
Laurel leaves, Turkish fancy, 35c. per lb.
Nutmegs, Whole & Reconditioned, 10c. per lb.
Oregano, Greek & Turkish, 45c. per lb.
Petitgrain Oil, South American, 25c. per kilo
Rosemary, Spanish & Portuguese, 2c. per lb.
Rosemary, Yugoslavian & French, 3c. per lb.
Tarragon, French Fancy, 45c. per lb.
Thyme, French, 10c. per lb.

CHANGES/DOWN

Cardamoms, Green, 50c.-\$2.25 per lb.
Cardamoms, Mixed Greens, \$1.00 per lb.
Celery Seed, Indian, 1c. per lb.
Clove leaf Oil, Indonesian, 15c. per kilo
Cumin seed, Indian & Iranian, 5-10c. per lb.
Cumin seed, Indian & Iranian, 5-10c. epr lb.
Cumin seed, Turkish, 3c. per lb.
Fir Needle oil, Canadian, 80c. per lb.
Patchouli Oil, Chinese, \$4.50 per kilo
Peppermints, Crushed/Cut, 5c. per lb.
Poppy seed, Australian, 2-3c. epr lb.
Spearmint Oil, Chinese 80%, \$1.50 per kilo

PERFUMES INDEX

The Perfumes & Flavorings index reflects the prices of 11 representative materials in this sector and the quantity of each supplied in 1985.

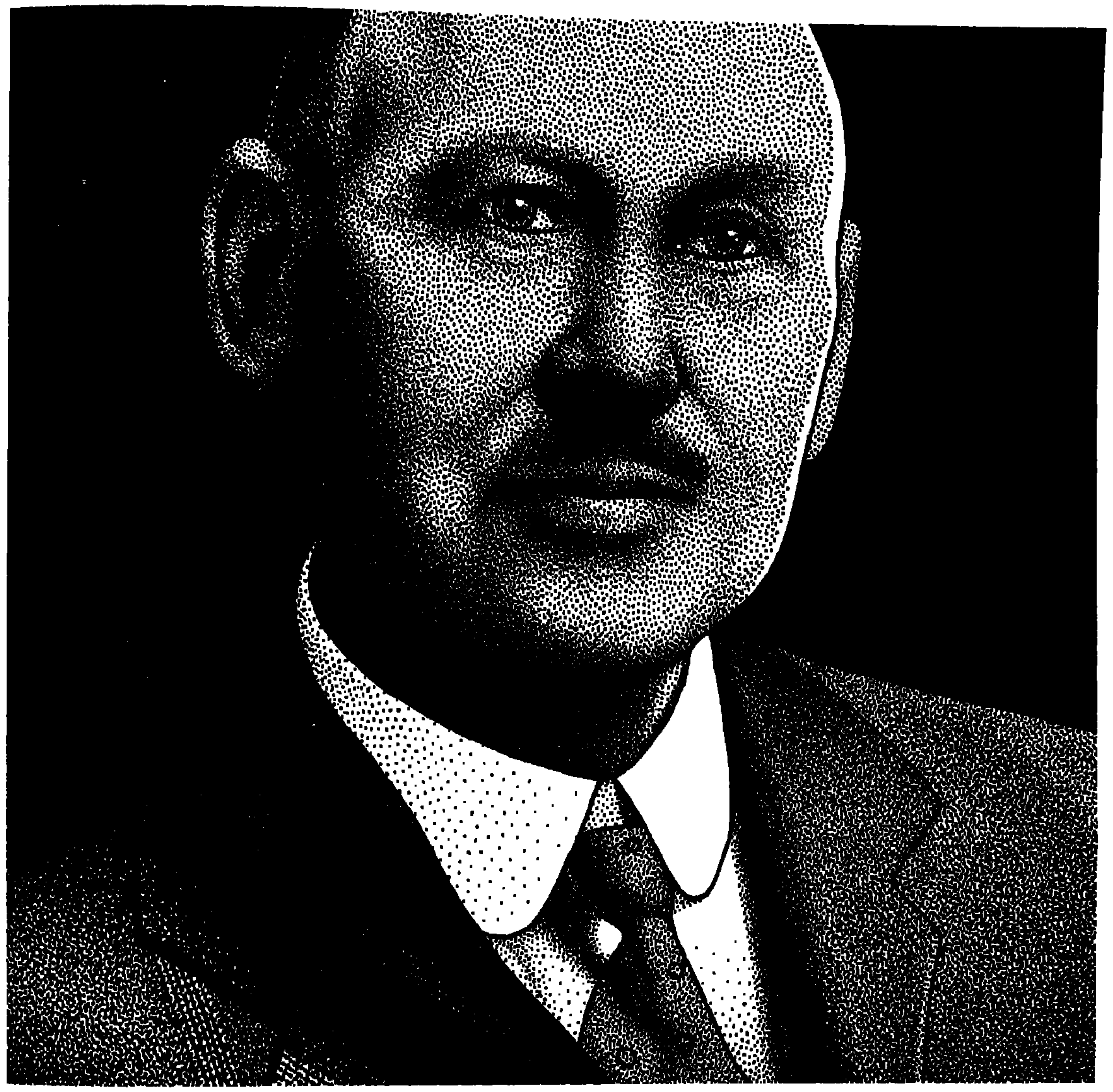
Sept. 26, 1986	71.00
Sept. 19, 1986	71.00
Aug. 29, 1986	71.00
Sept. 20, 1985	71.00

Chemical Prices Start on Page 32.

SEED & SPICE IMPORTS: JUNE

A SELECTION OF STATISTICS FROM THE BUREAU OF CENSUS.

		JUNE	MAY	1986 TO DATE	JUNE '85
Caraway seed	lb.	446,366	919,531	4,101,037	378,343
Celery seed	lb.	176,624	198,121	2,076,143	176,849
Cinnamon, unground	lb.	78,131	279,780	1,254,616	197,421
Cloves	lb.	122,144	60,676	1,459,995	164,449
Coriander	lb.	402,573	676,241	13,155,643	287,813
Cumin seed	lb.	570,617	826,122	4,513,027	791,937
Fennel seed	lb.	287,584	643,849	2,797,042	266,167
Ginger root	lb.	650,530	924,127	4,006,196	611,736
Mustard seed, whole	lb.	6,726,852	7,280,826	44,887,070	7,197,806
Nutmegs, unground	lb.	297,183	286,269	2,092,615	464,620
Origanum, whole	lb.	410,420	520,562	4,011,742	457,866
Paprika	lb.	1,236,982	1,191,267	9,800,456	1,684,676
Pepper, black, unground	lb.	10,666,048	11,252,203	49,624,961	5,325,066
Pepper, red, capsicum	lb.	2,021,246	1,747,641	8,667,706	1,052,325
Pepper, white, unground	lb.	206,284	625,732	3,038,245	505,036
Pimento, unground	lb.	80,644	113,640	939,199	[illegible]
Sage unground	lb.	229,840	236,136	1,656,791	457,306
Turmeric	lb.	765,130	669,750	2,368,151	546,445
Vanilla beans	lb.	52,066	92,066	1,419,319	70,949



HEAVY & AG CHEMICALS

Oxy, Church & Dwight Continued from Page 7

mond's chemical business or the Church & Dwight partnership.

LCP had produced potassium carbonate in Syracuse, N.Y., through a tolling arrangement with Allied Corporation, but shut that plant after Allied announced it would close its Solvay complex in Syracuse.

Church & Dwight says its interest in potassium chemicals stems from its strategy of growing through internal development and the acquisition of products complementary to its core business.

The company notes that the marketing characteristics of potassium carbonate are closely related to those of its existing carbonate products, particularly sodium bicarbonate, ammonium bicarbonate, and strontium carbonate.

Since August of last year Church & Dwight has owned 49 percent of Sales y Oxidos, a Mexican producer of strontium carbonate. Both strontium carbonate and potassium carbonate are used in specialty glass manufacturing and consequently, says the company, are sold to many of the same customers.

Church & Dwight expects a major growth area for potassium carbonate will be a new product it introduced about one year ago called "Hay Dry", the main ingredient of which is potassium carbonate. "Hay Dry" is an agricultural product used to accelerate the curing of hay.

On the whole, according to Occidental, the potassium carbonate market should grow at an estimated 2.1 percent per year. Much of this projection depends on the specialty glassware market, which is the largest end use for the product and which is also seen as a growth area.

INFLUX OF IMPORTS

This market has suffered some in recent years as the influx of imported televisions and personal computer displays displaces domestic outlets for potassium and strontium carbonate.

Imported potassium carbonate is a factor in the business, accounting for roughly 10 percent of the market. About two-thirds of imports are from France, where Rhone-Poulenc is said to produce.

West Germany, where Dynamit Nobel AG produces, follows France as the next largest exporter to the US. Also present are the Japanese, and E.I.F. Frutarom Ltd. of Israel.

Imports are on the decline, however, victim of the dollar's weaker value, according to one source. Through July of this year, less than 1,600 tons were imported, down over 25 percent from the corresponding period in 1985. Just over 3,000 tons were imported in 1985.

Pricing is stable, despite the changes in ownership. Liquid material at 47 percent strength lists at $14.60 per hundredweight in tanks f.o.b. Muscle Shoals. Calcined material lists at $32.50 per hundredweight in cars and trucks, $35.20 per hundredweight in bags both f.o.b Muscle Shoals. One source says that selling prices for bagged material may be closer to 32 cents per pound in some instances.

BASES & SALTS

CAUSTIC SODA — Two caustic soda price increases were announced last week, both aimed at fourth quarter contracts. Occidental Chemical is increasing its off-list price by $25 per ton, effective immediately on spot sales and as contracts permit.

Present list price schedules remain in effect as follows: $290 per ton for standard grade and $310 per ton for membrane or mercury cell grade, f.o.b. Tacoma, Wash; $210 per ton and $230 per ton, respectively, f.o.b. Taft, La.; $245 per ton and $260 per ton, respectively, f.o.b. Niagara Falls, N.Y. Prices are freight equalized with nearest competitive producing point.

Atochem Inc. says it is increasing its off-schedule prices for caustic soda liquid diaphram cell grade as well as rayon grade. The increase will be effective October 1 and as contracts permit.

The company notes that while it may be difficult to return immediately to published list prices, a $20 to $25 per ton increase in off-list prices, depending on grade, is necessary to improve the poor margins of the caustic soda business.

Atochem says that caustic soda inventories are on the decline both in the US and in Western Europe due to better than expected demand, primarily by the pulp and paper industry. Atochem Inc. of Glen Rock, N.J., is a subsidiary of Atochem SA of France, a major producer of caustic soda and chlorine.

SODIUM CHLORATE — Occidental Chemical is announcing a $25 per ton off-list increase in the price of sodium chlorate (R-2 solution). The increase is effective immediately on spot sales and as contracts permit.

Oxychem's list price of $420 per R-2 unit remains unchanged. An R-2 unit consists of approximately 1.0 ton of anhydrous sodium chlorate and 0.6 tons anhydrous sodium chloride dissolved in 2.4 tons of water.

PRICES TRENDLINES

WEEK ENDING SEPT. 26, 1986

CHANGES/UP

Caustic soda solution, $25 per ton
Sodium chlorate solution, $25 per ton

CHANGES/DOWN

None

HEAVY & AG INDEX

The Heavy & Ag Chemicals index reflects the prices of 18 representative materials in this sector and the quantity of each produced in 1985.

Sept. 26, 1986	113.69
Sept. 19, 1986	113.69
Aug. 29, 1986	113.69
Sept. 27, 1985	113.69

Chemical Prices Start on Page 32

INORGANIC CHEMICAL OUTPUT: JUNE

SELECTED FIGURES IN SHORT TONS FROM THE CENSUS BUREAU.

	JUNE '86	MAY '86	JUNE '85
Aluminum sulfate, commercial	106,463	97,534	86,697
Calcium carbide, commercial	16,113	19,139	24,650
Calcium phosphate, dibasic anhyd.	44,282	39,535	55,962
Caustic soda, dry	15,691	16,412	19,063
Caustic soda, liquid	946,138	939,691	934,805
Chlorine, gas	896,958	899,846	929,061
Chlorine, liquid	705,899	707,848	641,663
Hydrochloric acid	274,602	299,266	245,792
Hydrofluoric acid	15,137	13,163	15,497
Hydrogen peroxide	11,464	12,452	10,165
Phosphorus, elemental	27,850	12,069	12,515
Phosphorus oxychloride	2,111	2,393	1,889
Phosphorus pentasulfide	6,165	6,363	5,331
Phosphorus trichloride	6,126	7,994	7,540
Potassium hydroxide, liquid	—	—	18,551
Potassium pyrophosphate, anhyd.	1,936	1,391	1,362
Sodium chlorate	21,090	22,753	20,263
Sodium metal	—	—	6,090
Sodium sulfate, anhyd	59,265	66,728	66,259

Pfizer Neutralizes Acid in Mass. Lakes

Pfizer, Inc. is branching out. The company embarked on a program this Summer using calcium carbonate to raise the pH level of several lakes and ponds in New York's Adirondack Mountains, Plymouth and Cape Cod, Mass. damaged by acid rain. Operating from its Adams, Mass. plant, Pfizer recently delivered a shipment of limestone to Florida, Mass. where it was used to restore and neutralize the acidified North Pond in the Berkshires.

Overseeing preparation of the neutralizing agent were C.W. Kleczko, lime and limestone product manager for Pfizer, and executives of International Science and Technology Inc. IS&T, a contracting firm located in Reston, Va., designed and operated the treatment project in collaboration with Living Lakes Inc. of Washington. The program is conducted in cooperation with the US Fish and Wildlife Service who has played a major role in developing strategies to protect the nation's water resources.

Massachusetts was chosen as a research site because it once had a thriving sport fishery, Pfizer says, but its fish populations have been reduced by acid deposition.

At the staging area, a dry powder form of calcium carbonate, or limestone, was transferred by tank-truck to a waiting helicopter at the 18-acre target pond. The helicopter, specially equipped with a storage tank and spray nozzle, was then filled with a slurry of Pfizer's "Eco-Cal 14." As the helicopter flew over the pond, the mist was released.

The acid level was effectively reduced and fishing and swimming could be resumed within a few hours after spraying.

Pesticide Reform

Continued from Page 5

(R-Minn.), is expected to propose the same requirement when the Senate bill reaches the floor.

NACA says it is also opposed to some provisions in a groundwater protection amendment adopted by the House. Parts of the program would be placed under the jurisdiction of the House Energy and Commerce Committee, where the industry believes its interests would not be well served. The committee's panel on health and environmental issues is chaired by Rep. Henry Waxman (D-Calif.), a strong critic of the chemical industry who favors stringent regulation.

Environmental groups, seeking to delete a uniform tolerance provision from the Senate bill, were disappointed when the House voted 214-121 to include it in its version.

The amendment to prevent states from adopting stricter standards than those set by the Federal government for pesticide levels in food products "jeopardizes" the FIFRA reform movement, says a spokeswoman for the environmental coalition, the Campaign for Pesticide Reform.

Unless the provision is stricken from the Senate bill — an uphill battle — she says the environmental lobby may oppose the bill.

One environmental group, the National Coalition Against the Misuse of Pesticides, says it has decided to oppose any FIFRA bill that contains a uniform tolerance provision.

"We are not going to support a bill that mandates uniform pesticide tolerances — no way," says the group's director Jay Feldman. He says the benefits of FIFRA reform "are not worth the intrusion into state authority over food contamination problems."

Al Meyerhoff, an attorney for the National Resources Defense Council, a member of the CPR, says the uniform tolerance provision is being pushed by large food processing companies who "see the handwriting on the wall: that as pesticides are tested, at least half of them will be found to cause cancer."

But Jeffrey Nedelman, a spokesman for the Grocery Manufacturers Association, notes that the prohibition against state regulation would apply only to pesticides initially registered for use after current health safety requirements went into effect in 1985, and for older pesticides that have been reregistered by Environmental Protection Agency in accordance with the new standards.

"That safety level ought to apply uniformly across the country," he says. "When it does, farmers and manufacturers are assured of markets, and consumers are assured of the safety of the food they purchase."

COATINGS & PLASTICS

Plasticizer Producers

Continued from Page 5

Far East, typically priced 15 to 20 percent cheaper than domestic product, had eroded prices to the point where list values had become almost meaningless. Depending upon location (hence, availability of imports), plasticizers were selling an average of 20 to 30 percent below list. DOP, the most widely-used plasticizer, listed from 40 cents per pound to 45 cents per pound, was being sold from 28 cents per pound to 34 cents per pound in various parts of the US.

A sorely needed July increase of 2 cents per pound, which producers now describe as "largely successful," helped narrow the gap between selling and list prices. In August and through September selling prices for DOP are said to have firmed up to 32 to 36 cents per pound. The October increase is still needed to pull margins up to a realistic level, producers assert.

With a weaker US dollar and more profitable markets abroad, imports are not playing the major role they did last year in the US market, producers report. Although, the Brazilian and Taiwanese products are "still there," they are generally of lower quality, producers say, and seem to be affecting only spot DIDP and DINP prices presently, though they acknowledge that the situation may change.

US DEMAND FLAT

US demand for flexible PVC has been flat since 1980, growing by 3 to 3.5 percent in good years. Where 1979 saw a flexible PVC market of 2.6 billion pounds, demand fell to 2.4 billion pounds in 1982. Last year, according to SPI statistics, demand fell to 2.3 billion pounds, 32 percent of the total PVC market. This year, demand is expected to reach 2.4 million pounds; no significant future growth is anticipated.

Controversy has surrounded the use of DOP, the highest volume phthalate plasticizer, in flexible vinyl products since the early 1980's, when the National Cancer Institute published findings that the plasticizers caused cancer in rodents. The National Resources Defense Council and other environmental groups moved to have the plasticizer banned.

The EPA ruled that improper experimental procedure flawed the study's findings and has supported CMA's continued production of DOP. As one plasticizer producer summarizes problems with the study, results could not be duplicated with different species of rodents. In addition, it was not definitively established that DOP, and not other esters involved in flexible PVC production, caused the results. NCI's findings, however, had a definite impact on some DOP and phthalate plasticizer markets, and the Consumer Products Safety Commission continues to contest its use. Use of DOP-treated PVC in toys and baby products fell sharply in the early 1980's, and continues to fall. It is no longer used in wrapping. In 1985, SPI figures show that flexible PVC use in toys fell 23 percent from the previous year; over the same time period, use in upholstery fell 14 percent and in packaging, 11 percent.

Producers of DOP say that customers' fears have been allayed somewhat by EPA's stand. Those end-users who felt uneasy about possible carcinogenicity have stopped using the plasticizers, but manufacturers feel that others will continue to turn to DOP, DIDP and DINP for general purpose plasticizer needs.

Within the overall phthalate plasticizer market, DOP demand has fallen significantly since 1980. Where in 1984 it accounted for 25 percent of the total phthalate plasticizer market, and was projected by some analyst to move to 30 percent by 1988, it currently makes up only 20 percent of the total, two producers estimate. Apparently, end-users have been turning to linear plasticizers such as Monsanto's 7-11 and 6-10 (and equivalent lines produced by other firms), as well as DIDP and DINP, both of which show better resistance to extremes of temperature, lower volatility and better electrical properties.

PRICES TRENDLINES

WEEK ENDING SEPT. 26, 1986

CHANGES/UP
TiO_2 up 2-4c. per lb.
PVC up 2c. per lb.

CHANGES/DOWN
None

COATINGS INDEX
The Coatings & Plastics Index reflects the prices of 13 representative materials in this sector and the quantity of each produced in 1985.

Sept. 26, 1986	306.4
Sept. 19, 1986	306.4
Aug. 29, 1986	306.4
Sept. 27, 1985	306.4

Chemical Prices Start on Page 32

Producers project 5 percent growth in demand for linear phthalate plasticizers.

Within the smaller adipate plasticizer market, use of DOA, the highest volume product, has also been controversial. Producers say the F.D.A. has questioned use of this plasticizer in plastic vegetable wrap. Although producers say that this has not yet had any significant effect on demand, and DOA continues to be used, CMA, in conjunction with FDA and EPA, is expected to start extensive testing of the plasticizer by the end of the year.

Overcapacity has been a problem in the phthalate plasticizer market, as incremental increases are easily and inexpensively made. While nameplate capacity is currently around 2.09 billion pounds, effective capacity is between 1.7 and 1.8 billion pounds; capacity utilization estimates are about 75 percent of effective total. Plasticizer capacity is not a fundamental market variable, however, producers explain; oxalcohol is the fundamental determinant.

Demand for phthalate plasticizers is expected to reach between 1.2 billion and 1.4 billion pounds this year. One producer pinpoints a figure to reach 1.38 billion this year, expected to be "one of the lowest demand years since 1980." He projects that demand will slowly begin to rise next year, with the market size reaching 1.78 billion pounds in 1991.

PRIME PIGMENTS

CARBON BLACK — Producers report that selling prices for carbon black remain at second quarter levels, with individual commodity grades selling for between 21.75c. per pound and 24c. per pound.

Carbon black fabs fell 2.75c. per pound between March and July, in response to falling carbon black oil costs; producers of the pigment lowered selling prices an additional 1c. per pound effective July 24.

Carbon black oil prices have begun to edge upward, however, producers report. So far, they have moved from their July low of $9.50 per barrel to $11 per barrel, and fourth quarter price increases are expected to be announced by the end of the month.

Producers of carbon black have not an-

Continued on Page 40

THERMOPLASTICS

BULK PRICES IN SEPT. 1986

		SEPT. (US $)	AUG. (US $)
Polyethylene-LD,film	lb.	.29	.24-.28
Polyethylene-HD, injection	lb.	.28	.24-.28
Polyethylene-LLD*	lb.	.28-.30	.28-.30
Polypropylene, molding	lb.	.33-.36	.32-.35
Polystyrene, g.p.	lb.	.35-.37	.34-.35
Polyvinyl chloride, pipe	lb.	.28-.29	.28-.30

*Butene-1 comonomer.

CHEMICAL PRICES

WEEK ENDING SEPT 26, 1986

This chemical prices section contains spot quotations and/or list prices of suppliers of chemicals and related materials on a New York or other indicated basis. The listings are based on price information obtained from suppliers. Note that posted prices do not necessarily represent levels at which transactions actually may have occurred. They do not represent bid and asked prices, nor a range of prices over the week. Price ranges may represent quotations of different suppliers as well as differences in quantity, quality and location. All matters under this heading are fully covered by copyright.

An index of weekly chemical market reports is on the back cover.

A

Abies siberica oil, cns. lb.	15.00	–
Acetaldehyde, 99%, tanks, frt. alld. lb.	.37	–
Prices 1c. higher in West.		
Acetaminophen (see N-Acetyl-p-aminophenol)		
Acetanilide, tech, flaked, bgs, t.l., f.o.b. works lb.	1.29	–
Acetic acid, tech., tanks, dlvd. E lb.	.25	–
Acetic anhydride, tanks, dlvd. E lb.	.43½	–
Acetic anhydride prices 1c. higher in West.		
Acetoacetanilide, dms., t.l., dlvd. lb.	1.29	–
Acetoacet-o-anisidide, dms., t.l., dlvd. lb.	2.70	–
Acetoacet-o-chloroanilide, dms., t.l., dlvd. lb.	2.85	–
Acetoacet-o-toluidide, dms., t.l., dlvd. lb.	1.58	–
Acetoacet-m-xylidide, dms., t.l., dlvd. lb.	3.33	–
Acetone, tanks, dlvd. E. lb.	.25	–
dlvd. Zone 2 (Calif.) lb.	.27	–
dlvd. Zone 3 (W. of Rockies excluding Calif.) lb.	.27	–
Acetonitrile, tanks, frt. alld. lb.	.53	.54½
Acetophenetidin (see Phenacetin).		
Acetophenone, tech., tanks, f.o.b. works lb.	.76	.85
perfume grade, extra, cns lb.	2.15	–
N-Acetyl-p-aminophenol, c.l., t.l. works kilo	5.95	6.64
Acetylene black, imp., 60% compressed, 12½-lb. bgs. c.l., t.l. frt. extra lb.	.96	–
100%, 25-lb. bgs., same basis lb.	.95½	–
Acetylene tetrabromide, tanks, f.o.b. works lb.	.97	–
Acetylsalicylic acid, USP (see Aspirin).		
Acetyltributyl citrate, bulk, f.o.b. works lb.	1.28	–
Acetyltriethyl citrate, bulk, f.o.b. works lb.	2.06	–
Acrolein, tech., tanks, works lb.	.62	–
Acrylamide, solid, t.l. works lb.	1.00	–
soln., 100% basis tanks, works. lb.	.74	.77
Acrylic acid, glacial, reg., tanks, dlvd. lb.	.67	–
tech., tanks, frt. alld. lb.	.60	–
Acrylonitrile, tanks, works lb.	.39½	.45½
Acrylonitrile-butadiene-styrene resin, high-impact, nat., t.l., dms., dlvd. lb.	1.09	1.12
medium-impact, nat., same basis lb.	1.05	1.08
low-impact, nat., same basis lb.	.98	1.01
Adipic acid, resin grade, bulk, hopper cars, frt. equald. lb.	.57	–
bgs., t.l., c.l. frt. equald. lb.	.59	–
Agar USP, powd., 60 to 100 mesh, dms. lb.	9.50	9.85
Alcohol, syn. C-8 to C-10, tanks, f.o.b. works lb.	.38	–
C-12 to C-13, tanks, dlvd. lb.	.57	.59
C-14 to C-15, tanks, dlvd. lb.	.57	–
C-16 to C-18, tanks, dlvd. lb.	.60	–
Aldehyde, C-6, dms. lb.	4.10	5.70
C-7, dms. lb.	1.95	–
C-8, dms. lb.	4.30	6.30
C-10 dms. lb.	4.30	5.35
Algin (see Sodium alginate.)		
Alkali blue, dry, flushed, 110-lb. dms, dlvd. lb.	3.72	3.83
Alkali blue prices 1c. higher W. of Rockies.		
Allspice Guatemalan / Honduran, bgs. lb.	.87	–
Jamaican, bgs. lb.	1.05	–
Allyl alcohol, tanks, f.o.b., Bayport, Tex. lb.	.90	–
Allyl bromide, 500-kilo dms. 2,000 lbs. or more, works lb.	5.50	–
Allyl caproate, 25-lb. cns. lb.	3.90	4.50
Allyl chloride, tanks, f.o.b. works lb.	.65	–
Allyl isothiocyanate, bots. lb.	5.40	6.90
Almond oil, artif., bitter (see Benzaldehyde.)		
Almond oil, nat. bitter, NF f.f.p.a. bots. lb.	3.50	3.60
sweet lb.	1.24	1.50
Aloe, Cape, cs. lb.	2.00	–
powd., cs. lb.	2.25	2.75
Curacao, kgs. lb.	2.60	–
powd., kgs. lb.	3.00	–
Aloin, NF, dms. lb.	6.00	6.70
Alum, ammonium, tech. gran., bgs., c.l., t.l., works 100lb.	35.00	–
FCC powd., fiber dms., works 100lbs.	55.00	–
Alum, potassium, tech. gran. bgs., c.l., t.l., works 100 lbs.	35.00	–
FCC powd. fiber dms., works 100 lbs.	55.00	–
Alumina, activated, gran., 100-lb. bgs., 40,000-lb. min. c.l., works. ton	821.00	–
calcined, bulk, same basis ton	354.00	–
100-lb. bgs., same basis ton	380.00	–
hydrated, white, bulk, same basis ton	190.00	–
100-lb. bgs., same basis ton	224.00	–
Aluminum acetate, basic, dms., t.c.l., works lb.	3.25	–
Aluminum chloride, anhyd., soln., 500-600 lb. dms., c.l., t.l., works, frt. equald. lb.	.53	–
bulk, same basis lb.	.48	–
semi-bulk bins, same basis lb.	.52	–
Aluminum chloride, coml., soln., 32° tanks, works 100 lbs.	15.00	–
ret. dms., c.l., works 100 lbs.	12.00	–
non-ret. dms., same basis 100 lbs.	20.00	–
Aluminum formate, dibasic, liq. 8% Al_2O_3 t.l., works lb.	.55	–
Aluminum hydrate (see Alumina, hydrated)		
Aluminum hydroxide, dried, gel, NF, 75-lb. dms., c.l., t.l., works. lb.	2.75	3.50
Aluminum metal, 99½% or more, 50-lb. pigs., 30,000-lb. lots, frt. alld. lb.	.76	–
Aluminum oxide amorphous (see Alumina, calcined).		
Aluminum paste, leafing grade, std., lining, 2,400 lb. lots, dlvd. lb.	1.40	–
lining, extra-fine, same basis lb.	1.99	2.14
Aluminum phenolsulfonate, purif., 100-kilo dms., t.l. kilo	6.46	–
Aluminum powder, leafing grade, std. lining, 2,400 lb. lots, dlvd. lb.	3.17	–
extra fine, lining, same basis lb.	4.04	–
Aluminum stearate, bgs., c.l. lb.	1.25	1.37
Aluminum sulfate, coml., grd., 100 lb. bgs., c.l., works, frt. equald., basis 17% Al_2O_3 East and Gulf Coasts ton	205.00	–
West Coast ton	220.80	–
liq., tanks, N.E. same basis ton	145.00	–
Iron-free, dry, bgs., c.l. same basis ton	300.00	–
liq., tanks, same basis ton	225.00	265.00
Aluminum sulfate, USP, gran., dms. lb.	–	.337
Aminoacetic acid, USP, dms., 20,000 lbs., f.o.b. works lb.	2.12	–
tech., t.l., same basis lb.	1.88	–
p-Aminobenzoic acid, 1,000 kilos or more, dms., f.o.b. works kilo	9.60	10.10
2-Amino-4-chlorophenol dry and grd., 14,000 lbs. or more, frt. alld. lb.	5.79	–
Aminoethyl ethanolamine, tanks, frt. collect lb.	1.33½	–
N-Aminoethyl piperazine, tanks, f.o.b., frt. collect. lb.	1.05	–
2-Amino-2-ethyl-1,3-propanediol dms., t.l. f.o.b. works lb.	1.82	–
2-Amino-2-methyl-1-propanol, 95%, dms., c.l., t.l., f.o.b. works lb.	.95	–
tanks, f.o.b. works lb.	.89	–
o-Aminophenol, dms., f.o.b. Charlotte, N.C. lb.	3.95	–
p-Aminophenol, t.l. dms., f.o.b. Raleigh, N.C. kilo	7.15	–
p-Aminosalicylic acid, USP, 50-kilo dms., t.l. kilo	18.50	–
Ammonia, anhyd., fertilizer, wholesale, tanks, dlvd. Midwest terminals ton	165.00	170.00
tankcars, f.o.b. Gulf Coast ton	80.00	85.00
aqueous, 29.4% NH_3, anhyd. basis, tanks, frt. equald. E. of Rockies ton	260.00	315.00
Ammoniacal liquor (see Ammonia, aqueous).		
Ammoniac sal, galvanizing grade, bgs., c.l., f.o.b. works 100lbs	28.60	–
Ammoniac sal. white (see Ammonium chloride coml.).		
Ammonium biborate, gran., dms., c.l. works lb.	.90	–
Ammonium biborate powder 15c. per lb. higher.		
Ammonium bicarbonate, 300-lb. fib. dms., c.l., works 100 lbs.	26.00	–
bgs., c.l. 100 lbs.	25.00	–
Ammonium bichromate, photo-litho grade, gran. 100-lb. dms., l.t.l. works lb.	2.00	–
Ammonium bifluoride, bgs., t.l., works lb.	.70	–
Ammonium bromide, dom. NF, gran., dms., c.l., t.l., f.o.b. works lb.	1.31	–
Ammonium chloride, white, tech., fine gran., bgs., c.l., works 100lbs.	18.00	–
USP, gran., dms. lb.	.40	.53
Ammonium citrate, dibasic, 250-lb. dms. f.o.b. works lb.	2.79	–
Ammonium dimolybdate, approx. 85%, 24,000 lbs. or more lb	5.48	–
Ammonium fluoborate, tech., dms., c.l., t.l., works, frt. equald. lb.	1.79	–
Ammonium heptamolybdate, cryst., dms., 24,000 lbs. f.o.b. works lb.	5.57	–
Ammonium lauryl sulfate, tanks, f.o.b. works lb.	.29	.32
Ammonium lignin, sulfonate, bulk, f.o.b. Hoquiam, Ore. ton	72.00	–
Ammonium nitrate, dom., fertilizer grade, 33.5% N, bulk, S.E. dlvd. ton	130.00	135.00
Ammonium oxalate, tech., fine. gran. 300-lb. dms., t.l., f.o.b. works lb.	1.42	1.68
Ammonium pentaborate gran. bgs., c.l., works lb.	.75	–
Ammonium pentaborate powder 20c. per lb. higher.		
Ammonium persulfate, 225-lb. dms, 24,000 lbs. or more, f.o.b. works lb.	.58	–
55-lb. bgs., same basis lb.	.58½	–
Ammonium phosphate (see Di- and monoammonium phosphates).		
Ammonium silicofluoride, dms. c.l., t.l., works lb.	.30¾	–
Ammonium sulfate, lg. gran., bulk, c.l., works ton	80.00	90.00
std., coml., bulk, f.o.b. works ton	60.00	70.00
tech., bgs., c.l., t.l., works ton	108.00	120.00
Ammonium sulfide, liq., 40-44% tanks, 100% basis, frt. equald. ton.	460.00	–
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate).		
Ammonium thiocyanate, tech., cryst., bgs., c.l., works lb.	1.02	–
tech soln., 50%, tanks, frt. equald. lb.	.93	–
Ammonium thiosulfate, photographic, 60%, tanks, f.o.b. works lb.	.13	–
Ammonium zirconyl carbonate, soln., bulk lb.	.72	–
Amyl acetate, primary mixed isomers, tanks, dlvd. lb.	.57	–
Amyl alcohol, primary mixed isomers, tanks, frt. alld. lb.	.46½	–
Amyl cinnamic aldehyde, dms. lb.	2.35	2.50
p-tert-Amylphenol, bulk, works lb.	.91	1.03
Amyris oil, dms. lb.	11.50	12.25
Anethole, tech., dms. kilo	10.20	–
USP, dms. lb.	3.65	4.60
Angelica root oil, bots. kilo	700.00	–
Aniline, tanks, f.o.b. lb.	.33	.35½
Anise oil, dms. kilo	11.75	–
Anise seed, Egypt, bgs. lb.	.63	–
Spanish, bgs. lb.	1.00	–
Turkish, bgs. lb.	.87	.95
Anisic aldehyde, cns., dms. lb.	4.80	5.40
o-Anisidine, imp., dms., dlvd. lb.	2.27	–
p-Anisidine, imp., cast solid, dms., works lb.	1.90	–
flakes, same basis lb.	2.25	–
Anthranilic acid, purif., 99% min., dms., t.l., frt. alld. lb.	1.70	–
Antimony fluoborate, liq. conc., 175-lb. dms., t.l., works lb.	3.02	–
Antimony metal, bulk, c.l., mines lb.	1.35	1.39
Antimony oxide, high-tint, bgs., c.l., frt. alld. E. of Rockies lb	1.35	1.50
Antimony trichloride, anhyd., solid, dms., t.l. works lb.	3.60	–
Apomorphine hydrochloride, NF, bots. gm.	15.00	–
Apricot kernel oil, dms. lb.	2.05	–
Arabic gum, powd., bbls lb.	1.85	2.15
spray dried lb.	2.00	2.50
USP grade lb.	6.75	9.25
Aromatic petroleum solvents (see Solvent, naphtha, petroleum, aromatic).		
Arsenic, crude (see Arsenious trioxide)		
Arylid, red (see Napthol, arylid red)		
Arsenious trioxide, 99%, bulk, c.l., f.o.b warehouse lb.	.42	.45
Asbestine (see Talc, fibrous)		
Ascorbic acid, USP, 100 kilos, dlvd. kilo.	9.00	10.50
Ash, black (see Barium sulfide)		
Asphalt gilsonite, (see Gilsonite).		
Asphalt petroleum cutback, tanks, E Coast gal	.86	–
emulsion, tanks, tankwagons, E. Coast gal.	.68	–
steam-refined, 40-300 penetration, tanks, tankwagon ton	170.00	–
steep roofing grade, bulk tankwagon ton	175.00	–
Aspirin, USP, cryst., powd., 250-lb. dms., c.l., f.o.b. lb.	1.95	–
10% starch granulation, white, 250-lb. dm, c.l., f.o.b lb.	1.97	–
16% starch granulation, white, same basis lb.	2.80	–
Freight equald shipt. identical quantity over standard routes from N.Y., Phila., Midland, Mich., Chicago and St. Louis.		
Atropine sulfate, USP, bots oz.	10.00	11.00
Avocado oil, dms lb.	4.00	4.50
Azelaic acid, tech., 50-lb. bgs., t.l., c.l., dlvd. lb.	1.23	–
Azo orange, bbls, dlvd. lb.	4.60	–
Azo yellow, 10 G, bgs, dlvd. E. of Rockies lb	4.40	–
Azo G yellow pigment, bgs., same basis lb	2.45	–

B

Bacitracin, USP, non-sterile, one billion units or more million units	6.30	6.80
Barbital, NF, 50-kilo dms., dlvd. kilo	22.50	–
Barbital-sodium, NF, 50-kilo dms. dlvd. kilo	23.00	–
Barite, dry-grd, Southern, off-color, coarse, bgs., c.l., f.o.b. mines lb	.09	.11
water-grd., white, bgs., c.l., f.o.b. works lb.	.13	–
unbleached, extra-fine, pigment grade, c.l., f.o.b. works ton	160.00	–
Barium carbonate, precip., bulk, c.l., works, frt. equald. lb.	.25	–
bgs., same basis lb.	.25½	–
photo grade, bgs., same basis ton	510.00	–
Barium chlorate, 100-lb. dms., 1-10 dm. lots, works lb.	1.04	–
Barium chloride, tech., cryst., bgs., c.l., works ton	470.00	–
anhyd. drums c.l., same basis. ton	590.00	–
Barium chloride, purif., cyrst. 400-lb. dms., works lb.	3.76	–
Barium monohydrate, 55-lb. bgs., c.l., t.l. f.o.b. works 100 lbs.	46.00	–
octahydrate, cryst., bgs., same basis 100 lbs.	33.00	–
Barium nitrate, 100-lb. bgs., t.l., works 100 lbs.	32.50	–

ABBREVIATIONS

THE TERMINOLOGY OF THE CHEMICAL MARKETPLACE

a/alpha
alld./allowed
amorph./amorphous
AMP/American melting point
anhyd./anhydrous
AOAC/Association of Official Agricultural Chemists
a.p.a./available phosphoric acid
approx./approximately
artif./artificial
ASTM/American Society for Testing & Materials

b/beta
Be/Baume
bbls./barrels
b.g./beta-gamma
bgs./bags
bls./bales
bots./bottles
b.p./boiling point
b.p.l./bone phosphate of lime
b.r./boiling range
bxs./boxes

C./Centigrade
cbys./carboys
c.c./cubic centimeters
CD/completely denatured
c.i.f./cost insurance freight
c.l./carload
cns./cans
coml./commercial
conc./concentrated
cp/chemically pure
cps./centipoises
cryst./crystalline
cs./cases
ctns./cartons
cyls./cylinders

d-/dextro
dbl./double
denat./denatured
dest.-dist./destructively distilled
dl/dextro-laevo
dist./distilled
distr./distributor
dlvd./delivered
dms./drums
dom./domestic

E/East
e.p./end point
equald./equalized
exp./expressed
extr./extracted

F./Fahrenheit
f.a.s./free alongside
ferment./fermentation
f.f.a./free fatty acid
f.f.c./free from chlorine
f.f.p.a./free from prussic acid
fib./fiber
f.o.b./free on board
f.p./freezing point
frt./freight

g-/gamma
gal./gallon
g.p./general purpose
gran./granular
grd./ground

i.b.p/initial boiling point
imp./imported

incl./included
indust./industrial

kgs./kegs

l-/laevo
lb./pound
l.c.l./less carload
l.t.l./less truckload
liq./liquid

m-/meta
m.a.p./mixed aniline point
mcg./microgram
mfrs./manufacturers
min./minimum
molt./molten
m.p./melting point

N/nitrogen
n-/normal
nat./natural
neut./neutral
NF/National Formulary
No./number
Nom./nominal

o-/ortho
ord./ordinary
oz./ounce

P/phosphorus
p-/para
Pac./Pacific
pf./proof
phos./phosphate
photo/photographic
pkgs./packages
powd./powdered
precip./precipitated
prod./producer
pt./point
pulv./pulverized
purif./purified

redist./redistilled
refd./refined
refy./refinery
resub./resublimed
ret./returnable

SD/specially denatured
s.d./single distilled
SE/Southeast
sec./secondary

secs./seconds
sp.g./specific gravity
ship't/shipment
soln./solution
std./standard
syn./synthetic

tanks/railroad tankcars
tech./technical
tert./tertiary
t.l./truckload
ton/refers to short ton of 2,000 pounds
TVA/temporary voluntary allowance
t.w./tankwagons

USP/United States Pharmacopeia

vis./viscosity
VM&P/varnish makers & painters

W/West
whse./warehouse
w.w./water-white

NOTE: A unit-ton is 1 percent of 2,000 pounds of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the unit-ton price shown in Chemical Marketing Reporter gives the price of 2,000 pounds of the material.

Barium oxide, grd. dms., c.l. dlvd 100 lbs	31.25	–
tote bins, same basis. 100 lbs	30.00	–
Barium peroxide, 700-lb. dms., c.l., t.l., works lb	30	–
Barium stearate, bulk, t.l., f.o.b dest. lb	1.05	–
Barium sulfate, tech (see Barite and Blanc fixe)		
Barium sulfate, USP, X-ray diagnosis grade, powd., 25 kilo bgs., 10,000 kilo lots lb	58½	–
Barium sulfide (black ash), dms, c.l., works ton	460.00	–
Basil Egyptian lb	75	85
French lb	88	90
Basil oil, Comores lb	90.00	–
Basil oil, Grand Vert lb	45.00	–
Battery acid, t.l., f.o.b., works ton	52.00	70.75
Bauxite, calcined, refractory grade, 87½-88% Al_2O_3, Baltimore & Mobile metric-ton	229.28	–
Bayol, NF, 55-60%, dms lb	10.50	15.00
Bayberry wax, bgs. lb	2.70	3.00
Beeswax, refd., bleached white, bricks, 100-lb ctns. lb	3.10	3.20
white, slabs, 100-lb. ctns lb	3.05	3.10
yellow, bricks, 100-lb ctns lb	3.00	3.10
yellow, slabs, 100-lb. ctns lb	2.95	3.05
Bentonite, dom., c.l. bags, f.o.b. works ton	43.50	–
Benzaldehyde, NF, dms lb	1.25	–
tech., dms., c.l., t.l. lb.	.73	.83
Prices are 4c. per lb higher West of the Rockies.		
Benzene, indust. or nitration, barges, f.o.b		
Baton Rouge, La gal	.85	–
Baytown, Tex. gal	.85	–
Beaumont, Tex. gal	.85	–
Catlettsburg, Ky. gal	.85	–
Chicago district gal	.85	–
Chocolate Bayou, Tex gal	.85	–
Clarton, Pa gal	.85	–
Corpus Christi, Tex gal	.85	–
Deer Park, Tex. gal	.85	–
Houston district, spot gal	.81	.82
Lima, Ohio gal.	.85	–
Wood River, Ill. gal	.85	–
Benzene hexachloride, 99% gamma isomer (see Lindane).		
Benzidine orange, powd., bgs, dlvd. lb	4.90	8.70
liq., containers, dlvd. lb	3.36	3.89
Benzidine yellow, AAA, bgs, dlvd lb.	5.80	6.05
AAOA, bgs., dlvd. lb	7.35	7.40
AAOT, bgs., dlvd. lb	5.95	6.20
Benzocaine, USP, dms, 1,000 kg lots, f.o.b. works kg.	10.00	11.50
Benzodihydropyrone, dms. lb	12.50	–
Benzoic acid, tech., bgs, c.l., t.l., f.o.b works lb	55	58
USP cryst., dms., ton lots same basis lb	1.73	1.75
Benzoin gum, Sumatra, cs lb	1.80	–
Benzophenone, N.F., 1,000 lbs or more, f.o.b lb	3.50	3.60
NF, 1,000 kilos or more, f.o.b kg	7.45	–
tech, 1,000 kilos or more, fob works kgs	4.35	–
2,2-Benzothiazyl disulfide (see Mercaptobenzothiazyl disulfide).		
Benzotriazole, flake, dms., 1,000 lbs or more, f.o.b. works lb	6.10	–
powd., dms., 1,000 lbs or more, same basis. lb	6.20	–
photo-grade, dms., 1,000 lbs or more, same basis. lb	9.90	–
Benzotrichloride, refd., dms t.l., frt equald. lb	.87	–
tanks, frt. equald lb	.80	–
Benzoyl chloride dms, c.l., works lb	.57	.59
tanks, frt. equald. lb	.74½	.75
Benzoyl peroxide, regular gran., 10,000-lb. lots or more, bgs., works, frt. equald. lb	2.35	6.98
paste, 50% and 55% formulations, dms., pails, frt. equald lb	1.71	1.95
Benzyl acetate, dms. lb.	1.20	2.60
Benzyl alcohol, N.F. t.l. dms. frt equald. lb.	1.26	1.85
tanks, same basis	1.37	1.43
photo grade, t.l., dms., same basis lb	1.40	–
tanks, same basis	1.34	–
tech. grade, t.l., dms., same basis lb.	1.32	–
tanks, same basis.	1.26	–
Benzyl benzoate, dms. lb.	1.65	2.25
Benzyl chloride, tech., non-ret. dms., c.l., t.l., frt equald. lb.	.50	–
tanks, f.o.b. lb.	.54	–
Benzyl cinnamate, 25-lb. cns. lb.	8.50	9.95
n-Benzyl-N,N-dimethylamine, t.l., dms., f.o.b. works lb.	2.30	–
Benzyl formate, dms. lb.	10.50	–
6-tert-Butyl-m-cresol (see Mono-tert-butyl-m-cresol).		
Benzyl isoeugenol, dms. lb.	15.50	–
Benzyl propionate, dms. lb.	3.35	–
Benzyl salicylate lb.	2.90	3.25
Benzylidine acetone, cns., bots. lb.	2.95	3.25
Bergamot oil, nat., Italian, f.o.b. kilo	44.00	–
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).		
Biotin, cryst., 500 gms. or more gm.	5.50	–
Biphenyl (see Diphenyl).		
Bismuth nitrate, purif. cryst., 100-lb. dms., frt. equald. lb.	10.00	–
Bismuth oxychloride, 100-lb. dms., works lb.	17.20	–
Bismuth subcarbonate, USP, medium powd., 225-lb. dms., works. lb.	15.31	15.60
Bismuth subgallate, purif., 100-lb. dms., works lb.	10.50	–
Bismuth subnitrate NF, powd., 200-lb. dms., works. lb.	14.45	–
Bismuth subsalicylate, purif. powd., 50-100 lb. dms., works lb.	17.00	–
Bismuth trioxide, reagent, powd., 100-lb. dms., works lb.	15.00	15.45
Bisphenol-A, epoxy grade, hopper cars, dlvd. lb.	.67	–
polycarbonate grade, same basis lb.	.71	–
Blanc fixe, syn., imp., bags lb.	.20	–
Bois de rose oil, Braz., dms. lb.	10.75	12.00
Peruvian, dms. lb.	10.75	–
BON toner (red 48) dms., frt. alld. lb.	7.25	8.05
(red 52) dms., same basis. lb.	6.50	7.90
Bonemeal, steamed, dom., bgs., c.l., f.o.b. Midwest plants ton	180.00	190.00
Bone phosphate, defluorinated of lime (see Defluorinated phosphate).		
Bone phosphate, precip. (see Calcium phosphate tribasic)		
Borax, tech. anhyd, 99%, bgs., c.l. works ton	647.00	–
bulk, c.l., works ton	602.00	–
Borax, tech., gran., decahydrate, 99½% bgs., c.l., works ton	237.00	–
bulk, c.l., works ton	192.00	–
tech., pentahydrate, gran 99½%, bgs., c.l. works ton	265.00	–
bulk, c.l., works ton	220.00	–
Borax, NF (See Sodium borate).		
Boric acid, tech., gran., 99.9%, bgs., c.l., works ton	614.00	–
bulk, c.l., works ton	569.00	–
Boron trichloride, CP, 1,800-lb. cyls., works lb.	3.80	–
Boron trifluoride, 60-lb cyls, t.l., f.o.b. works lb.	4.03	–
bulk, same basis lb.	3.47	–
Boron trifluoride, etherate, 500-lb. dms., t.l., f.o.b., works lb.	2.35	–
phenolate, 500-lb. dms., t.l., same basis lb.	1.65	–
Bromine, dms., t.l., works lb.	.87	–
bulk, 45,000-lb. min., works lb	.33	.34½
purif., t.l., dlvd. lb.	.75	–
Bromine dlvd., prices for dms. and bulk shipped W. of Rockies, 1c.-per-lb. higher. Bulk t.l. prices 1c. to 2½c.-per-lb. higher for 30,000-lb. min. and 4c. to 5½c.-per-lb. higher for 15,000-lb. min.		
Bromochloromethane, dms., c.l., f.o.b. Midland lb.	1.12	–
Butadiene, tanks, f.o.b. lb.	.26	.26½
1,4-Butanediol, tanks, f.o.b., frt. equald. lb.	.80	–
dms., same basis lb.	.88	–
Butene-1, tanks, f.o.b. works lb.	.26	.28
n-Butyl acetate, syn., tanks, frt. alld. lb.	.52½	–
n-Butyl acrylate, tanks, frt alld. E. lb.	.69	–
n-Butyl alcohol, syn., ferment, tanks, frt alld. lb.	.34	–
sec-Butyl alcohol, syn., tanks, dlvd. lb.	.365	–
tert-Butyl alcohol, syn., tanks, dlvd E. lb.	.70	–
Butyl aldehyde (see Butyraldehyde)		
Butyl benzyl phthalate, tanks, frt. alld. lb.	.59	–
Butyl chloride, tanks, works lb.	.99	1.00
Butyl cyclohexyl phthalate, tanks, dlvd. lb.	.74	–
n-Butyl ether, dms., c.l., t.l., works lb.	1.85	–
Butyl isodecyl phthalate, tanks, dlvd lb.	.35	–
n-Butyl lactate, tanks, f.o.b. works lb.	1.58	–
n-Butyllithium, 15% soln., 1,000-lb. lots or more, cyls., 100% basis, dlvd. lb.	15.45	–
tanks, 3,000-lb. min., 100% basis, dlvd. lb.	14.75	–
Butyl methacrylate, tanks, frt. equald. lb.	.88	–
Butyl octyl phthalate, tanks, dlvd. E. lb.	.40	.42
Butyl oleate, dist., dms., c.l. lb.	.70	.82
tanks lb.	.60	.75
p-tert-Butylphenol, tanks works lb.	.70	–
Butyl phthalate (see Dibutyl phthalate)		
Butyl stearate cosmetic, dms., 77 dms or more lb.	.91	.97
tanks lb	.92	–
Butyl stearate tech., t.l. lb.	.60	.62
tanks lb	.55	.58
Butylamine (see Mono-, Di- and Tributylamine).		
tert-Butylamine, dms., c.l., t.l., f.o.b. works lb.	1.31	–
tanks, same basis lb.	1.17	–
Butylated hydroxyanisole, food grade, dms., dlvd lb.	8.80	8.85
Butylated hydroxytoluene, food, feed grades, c.l., t.l., bgs, dlvd. lb.	1.24	1.30
tech., bgs, c.l., t.l., dlvd. lb.	1.24	1.30
1,3 Butylene glycol, tanks, dlvd lb	.72	–
Butyraldehyde, tanks, dlvd lb.	.29½	.38
Butyric acid, tanks, frt alld. lb	.44½	–
Butyric ether (see Ethyl butyrate)		
Butyrolactone, tanks, f.o.b. plant lb.	1.20	–
n-Butyronitrile, dms., c.l., dlvd lb.	.93	–
tanks, dlvd lb.	.54	–

C

Cadmium chloride, purif. cryst., 100-lb. dms., t.l., works lb.	3.73	–
Cadmium, CP, red, dark shade, bbls., 100-lb. lots, frt. alld., E. of Rockies lb.	11.33	16.35
light shade, bbls., same basis lb.	9.16	12.08
medium shade, bbls., same basis lb.	10.69	15.20
medium-light shade, bbls., same basis lb.	10.28	14.50
Cadmium, CP yellow, all shades, bbls., 100-lb. lots, frt. alld., E. of Rockies lb.	6.10	7.07
Cadmium fluoborate, liq. conc., dms., t.l., works, frt. equald. lb.	2.27	–
medium-light shade, bbls., same basis lb.	3.22	–
Cadmium-mercury lithopone, maroon shade, bbls., frt. alld. E. of Rockies lb.	4.60	–
Cadmium metal ingots or sticks, ton lots, cs., dlvd. lb.	1.20	1.60
Cadmium nitrate, purif., flake 400-lb. dms., c.l., t.l., f.o.b. ship. pt. lb.	2.10	–
Cadmium-selenide-lithopone, orange, light shade, bbls., 400-lb. lots, frt. alld, E. of Rockies lb.	3.97	4.00
deep shade, bbls., same basis lb.	4.47	4.60
Cadmium-selenide lithopone, red, dark shade, bbls., same basis lb.	6.77	6.80
light shade, bbls., same basis lb.	5.27	5.30
medium light shade, bbls., same basis lb.	5.72	5.75
medium shade, bbls., same basis lb.	6.37	6.40
maroon shade, bbls., same basis lb.	7.47	–
Cadmium-selenide lithopone, yellow, all shades, bbls., same basis lb.	2.97	3.00
Cadmium sulfate, 50-lb. dms., any quantity, f.o.b. ship. pt. lb.	4.05	–
Caffeine, dom., USP, syn. cryst. anhyd., powd., 100-lb. dms., c.l., t.l., frt. alld. lb.	4.80	–
imp., cryst., anhyd., powd., dms., 10,000 lbs. or more lb.	4.70	4.85
Calamine, USP, dms. lb.	1.60	1.70
Calamus oil, dms lb.	26.80	36.00
Calciferol (see Ergocalciferol).		
Calcium acetate, purif., powd., dms, t.l. works lb.	.87	–
Calcium carbide, std., generator size, bulk, c.l., f.o.b., works ton	402.00	–
Calcium carbonate, pulverized, 325-mesh, bgs., bulk, f.o.b. works ton	34.50	–
slurries, 54% solids, same basis ton	167.00	–
72% solids, same basis ton	98.00	–
quicklime, gran., ind., bulk, works ton	67.00	–
Calcium carbonate, coated, bgs., c.l., works lb.	.0742	.1360
Calcium carbonate, precip., bgs., c.l., t.l. ton	370.00	430.00
Calcium carbonate precip. medium, bgs., c.l., works ton	95.00	140.00
precip. dense. bgs., c.l., surface treated, bgs., c.l., works ton	195.00	–
ultrafine, USP, bgs., c.l., works ton	160.00	170.00
Calcium chloride, conc., reg. grade, 77-80%, flake, bulk, c.l., works ton	153.00	–
100-lb. bgs., c.l., same basis ton	196.00	–
anhyd., 94-97%, flake or pellet, bulk, c.l., same basis ton	217.00	–
80-lb. bgs., c.l., same basis ton	279.00	–
brining grade, 80-lb. bags ton	285.00	–
Calcium chloride, liq., 100 percent basis, t.c., t.t., barge ton	99.75	–
45% same basis ton	118.00	–
Calcium chloride, USP, gran., 225-lb. dms., t.l., frt. equald. lb.	.90	–
Calcium citrate, purif., 200-lb. dms., 10,000 lbs. or more, f.o.b. works lb.	3.82	–
Calcium cyanamide, indust., anhyd. dms., works ton	400.00	460.00
Calcium gluconate, USP powd. t.l. lb.	1.80	–
Calcium hydride, lump, dms., 25-1,000-lb. lots. works lb.	10.50	13.25
Calcium hypochlorite, 100-lb. dms., truckloads ship.t. E. of Rockies 100 lbs.	92.40	–
Calcium hypophosphite, dms., bulk, 500 kilos or more kilo	13.75	14.50
Calcium iodate, FCC dms., f.o.b. works lb.	5.60	–
Calcium iodide, 50-kilo dms., f.o.b. works kilo	23.65	25.65
Calcium lactate, NF, powd., pentahydrate, dms., 24,000 lbs. or more, f.o.b. works lb.	2.00	–
NF, gran., trihydrate, same basis. lb	2.10	–
special gran., dried grade, same basis lb.	2.80	–
Calcium naphthenate, liq., 4% Ca., c.l., f.o.b. plant, E. of Rockies lb.	.85	–
d-Calcium pantothenate, USP, 100-500-kilo lots kilo	11.50	12.50
dl-Calcium pantothenate, feed grade, f.o.b. frt. alld., 250 kilos or more kilo	8.00	8.50
dl-Calcium pantothenate, calcium chloride complex, feed grade, 160 grams per lb., f.o.b., frt. alld., 500 lbs or more lb.	2.75	–
Calcium phosphate, dibasic, feed grade, 18½% P. bulk, c.l., t.l., f.o.b. works ton	228.00	–
Calcium phosphate, dibasic, dihydrate, USP, bgs., c.l., t.l., works, frt. equald 100 lbs.	62.50	–
anhyd., USP, same basis 100 lbs.	71.75	–
dentifrice grade, same basis. 60 lbs.	49.90	–
Calcium phosphate, monobasic, monohydrate, food grade, bgs., c.l., t.l., works, frt. equald. 100 lbs.	50.50	–
anhyd., food grade, same basis 100 lbs.	54.95	–
tribasic, NF precip., bgs., c.l., frt equald. 100 lbs.	62.50	–
Calcium propionate, dms., 2,000 lbs. or more f.o.b. frt. alld. lb.	.50	.55
Calcium silicate, hydrated, bgs., c.l., works lb.	.07	–
Calcium silicate, paint grade (see Wollastonite).		
Calomel, NF, mild powd., 100-lb. dms., f.o.b. works lb.	8.50	–
Camphene chlorinated, 67-69% (see Toxaphene).		
Camphor, monobromated, dms., kgs. lb.	3.63	3.70
Camphor, syn., tech., 165-lb. dms., 5,000 lbs. or more lb.	1.80	–
USP, powd., 165-lb. dms., 5,000 lb. lots or more. lb.	2.36	–
syn., refd., 1-oz. tablets, ctns. 1,000-lb. lots or more lb.	3.50	–
Camphor oil, yellow, 25-lb. dms lb.	2.50	–
white, dms. lb.	1.50	–
spec. grav., 1.070, dms. lb.	2.00	2.25
Cananga oil, Indonesian, dms. kilo	17.00	–
Candelilla wax, crude, bgs. lb.	1.90	–
refd. pure, bgs. lb.	2.10	–
Capric acid, coml. pure, dms. lb.	.60	.65
tanks lb.	.60	.65
Capric aldehyde (aldehyde C-10) dms., cns. lb.	3.95	5.35
Caprolactam monomer, flake, bgs., t.l., f.o.b. shipping point lb.	.87	–
molten, tanks, same basis lb.	.85	–
Capryl alcohol sec. 92-99% tanks, f.o.b. works lb.	.35	–
Caprylic acid, coml. pure tanks lb.	.73½	–
Capsicum (see Pepper, red).		
Capsicum oil (see Capsicum oleoresin).		
Capsicum oleoresin, NF, from dom., pepper, dms. lb.	11.00	–
NF, from African pepper, dms. lb.	9.00	–
500,000 pungency lb.	17.00	18.00
1,000,000 pungency lb.	22.00	25.00
Caraway oil, Poland, dms. lb.	.56	.59
Caraway seed, Dutch, bgs. lb.	.52	–
Egyptian, bgs.		
Carbon black, furnace, fast extruding (FEF), bulk, c.l., works lb.	.2125	–
bgs., c.l., works lb.	.2425	–
general purpose (GPF), bulk, c.l., works lb.	.2075	–
bgs., c.l. works lb.	.2375	–
high abrasion (HAF), high structure, bulk, c.l. works lb.	.2300	–
bgs., c.l., works lb.	.2600	–

CHEMICAL PRICES

WEEK ENDING SEPT 26, 1986

Carbon Black, low structure, bulk, c.l. works lb.	.240	.260
bags, c.l. works lb.	.270	.290
intermediate-super-abrasion (ISAF) lb.	.25	–
bgs., c.l. works lb.	.28	–
super-abrasion (SAF), bulk, c.l., works lb.	.31	–
bgs., c.l., works lb.	.4050	–
semi-reinforcing (SRF), bulk, c.l., works lb.	.210	–
bgs., c.l., works lb.	.240	–
Carbon black, thermal, medium, bgs. c.l., works lb.	.30	.30½
bulk, c.l. works lb.	.32	.34½
Carbon black oil, barge, f.o.b. Gulf refineries bbls.	10.50	12.50
f.o.b. W. coast refineries bbls.	10.50	12.50
Carbon disulfide, t.c., f.o.b. works ton	420.00	–
Carbon tetrachloride, CP, consumers, dms., c.l., frt. alld. lb.	.36	–
tech., dms., c.l., t.l., frt. alld. lb.	.31	–
tank transport (min. 4,000 gals.) frt. alld. lb.	.24	–
Carboxymethyl cellulose (see CMC).		
Cardamom oil, NF, bots lb.	75.00	100.00
Cardamoms, decort, Guatemalan lb.	3.00	–
green, Guatemalan, bgs lb.	6.25	9.75
Carmine, No. 40, NF, bulk, 100-lb lots or more, dlvd lb.	135.00	140.00
Carnauba wax, Parnahyba, No. 1, yellow, bgs., ton lots lb.	1.95	2.05
Ceara, No. 1, yellow, bgs., ton lots lb.	1.75	1.90
North Country, No. 2, refined, bgs., ton lots lb.	1.55	1.65
Carnauba wax, North Country No. 3, centrifuged, bgs., ton lots lb	1.10	–
North Country, No. 3, refined, bgs., ton lots lb.	1.30	1.45
Powdered carnauba wax, 20 to 100 mesh, 20c. per lb. higher.		
b-Carotene, in vegetable oil, semi-solid suspension, 400,000 A units per gram., 33 lbs. or more lb.	32.75	–
b-Carotene, liq. in vegetable oil, 500,000 A units per gram., 33 lbs. or more lb.	40.75	–
b-Carotene, dry, beads, 10%, 167,000 A units per gram 50-lb cns lb.	28.85	–
d-Carvone, 25-lb dms, syn lb.	48.00	–
l-Carvone lb.	7.00	7.25
Cascara sagrada bark, bulk lb.	1.00	–
Casein, imp., acid-precip., grd., 30-mesh, Australian, edible, same basis. c.i.f. lb.	1.45	–
Australian, indust., same basis. c.i.f. lb	1.365	–
Cassella acid, 303 mol. wt., dms., frt. alld., 100% basis lb	3.70	–
Cassia, Korintji "A" bgs. lb.	.95	1.05
"B" bgs. lb.	.72	.78
Castor oil, raw, No. 1, Braz tanks lb.	.31	.31½
USP 5-9 dms lb.	.74	–
refd. deod., 5-9 dms lb.	.78	–
blown, 5-9 dms. lb.	.75	–
dehydrated, bodied, tanks lb.	.74	–
dehydrated, unbodied, tanks lb	.65	–
Castor oil, acids dehydrated, dms. lb.	1.10	–
ricinoleic acid lb.	.79½	.83
Castor pomace, bgs., container load, f.o.b., Miami, Fla ton	154.00	–
Castoreum, nat., cns. lb.	18.00	35.00
syn., cns. lb.	11.00	–
Catechol, CP, 45-kilo dms., 50-239 dms., f.o.b. kilo.	7.93	–
tech., bgs., t.l., same basis kilo.	3.71	–
Caustic potash (see Potash, caustic).		
Caustic soda (see Soda, caustic).		
Cedarleaf oil, dms lb.	17.50	–
Cedarwood oil, Texas, dms., cns lb.	3.50	4.00
Virginia lb.	3.70	4.20
Cedrol, prime dms. lb.	5.25	–
Cedryl acetate, dist., dms. lb.	4.25	5.30
Celery seed, Indian, bgs. lb.	.48	–
Celery seed oil lb.	50.00	53.00
Cellulose acetate, powd., bgs., t.l., dlvd. E. lb.	1.30	–
Cellulose acetate butyrate, powd., 17% butyl content, bgs., t.l., dlvd. E. lb.	1.75	–
38% butyl content, bgs., dlvd. E. lb.	1.59	–
50% butyl content, bgs., dlvd. E. lb.	1.81	–
55% butyl content, bgs., dlvd. E. lb.	1.63	–
Cellulose gum, pure, high vis., bgs., 24,000-lb. lots or more works, f.o.b. Hopewell, Va. lb.	1.60	1.70
std., low or medium vis., bgs., c.l., t.l., f.o.b. Hopewell, Va. lb.	1.50	1.90
Cerium concentrate CeO_2, 50 lbs. lb.	1.35	–
Cerium hydroxide 90% CeO_2, dms., works lb.	5.40	–
77% CeO_2, dms., works lb.	4.20	1.60
Cerium oxide, optical grade, bgs., 50-lb. lots or more, dlvd lb.	1.85	1.90
Cetyl alcohol, NF, cns., c.l., t.l., dlvd. E. lb.	.68½	1.27
Chalk (see Calcium carbonate).		
Chamomile flowers, Hungarian, cs. lb.	4.25	4.50
Roman, cs. lb.	4.94	–
Egyptian, whole lb.	2.70	3.00
Chamomile oil, blue, Egyptian lb.	545.00	–
blue, Hungarian lb.	370.90	–
Chenopodium oil, NF, cns. lb.	15.00	–
Chicago acid, dry, bbls., frt. alld. lb.	13.50	–
Chiles (see Pepper, red).		
Chlorendic anhydride, tech., dms., t.l., works lb.	1.30	–
Chlorinated paraffin, 40% chlorine, bulk, dlvd., Zone 1 lb.	.45	.46½
50% chlorine, same basis lb.	.45	.47½
60% chlorine, same basis lb.	.46½	.48½
70% chlorine, resinous, 50-lb bgs., c.l., dlvd., Zone 1 lb.	.69	–

CHEMICAL PRICES

WEEK ENDING SEPT 26, 1986

Chlorinated paraffin. Zone 2 prices are 1c. per lb. higher and Zone 3 prices are 2c per lb. higher and t.l. drum prices are 5c per lb. higher

Chlorinated rubber, 5, 10, 20 cps, bgs. t.l., divd ... lb.	1.66	–
40 cps. bgs., t.l., divd ... lb.	1.92	–
125 cps., bgs., t.l., divd ... lb.	2.60	–
300 cps., bgs., t.l., divd ... lb.	2.75	–
Chlorine, tanks single units works, f.o.b., frt. equald ... ton	195.00	200.00
Chloroacetic acid, mono, high purity, flake, 99% bulk f.o.b. works ... lb.	.56	–
2-Chloro-4-aminotoluene, tech., liq., dms., c.l., t.l., f.o.b. works . lb.	1.88	–
o-Chloroaniline, liquid, dms., c.l., f.o.b. works ... lb.	1.63	–
tanks, same basis ... lb.	1.55	–
p-Chloroaniline, solid, c.l., t.l., f.o.b. lb.	1.70	–
flake, dms., c.l., same basis ... lb.	2.00	–
o-Chlorobenzaldehyde, dms., t.l., works ... lb.	2.45	–
p-Chlorobenzaldehyde, dms., 2,000 lbs. or more, works ... lb.	3.84	3.85
o-Chlorobenzoic acid, dms. l.t.l. wks . lb.	3.90	–
p-Chlorobenzoic acid, dms., 500-lb. lots or more, works ... lb.	1.69	2.25
Chloroform, tech. tanks, distr. divd .. lb.	.34½	–
tech., consumers, tanks, divd ... lb.	.34½	–
NF tanks, min., consumer, 4,000 gals. divd ... lb.	.35½	–
2-Chloro-4-nitroaniline, paste, commodity basis, dms., t.l., f.o.b. ... lb.	3.06	–
powd., same basis ... lb	3.15	–
4-Chloro-2-nitroaniline, paste, 172.5 mol. wt., commodity basis, dms., t.l., f.o.b. ... lb.	2.25	–
powd., same basis ... lb.	2.70	–
o-Chlorophenol, dms., c.l., frt. equald ... lb.	2.00	2.40
p-Chlorophenol, dms., c.l., frt. equald ... lb.	1.25	1.70
Chloropicrin, coml., 1,500-lb. cyls., t.l., f.o.b. works ... lb.	1.25	–
Chlorosulfonic acid, tanks, frt. equald ... lb.	.16½	–
p-Chlorotoluene, tech., tanks, works ... lb.	1.00	–
Cholecalciferol, dry, 40,000,000 units per gram, kilo lots ... gm.	24.00	–
Choline bitartrate, cryst., 98% min., 50 kilo dms., f.o.b. Springfield, Mo. ... kilo.	6.90	–
Choline chloride, feed grade, 70% aqueous, t.c., t.l., divd E of Rockies ... lb.	.28	–
60% dry supplement ... lb.	.39	–
Choline chloride, 60% dry supplement, bulk hopper cars ... lb.	.39	–
bgs., 50,000 lbs. min ... lb.	.40	–
Choline chloride, pharmaceutical, 50 kilo, lots, f.o.b. Springfield, Mo. ... kilo.	5.00	–
Choline dihydrogen citrate, 98% min., 50 kilo lots, f.o.b. Springfield, Mo. ... kilo.	6.00	–
Chrome green, CP extra light, bgs., divd. E. of Rockies ... lb.	1.68	–
light, bgs., same basis ... lb.	1.70	–
medium, bgs., same basis ... lb.	1.72	–
extra deep, CP., same basis ... lb.	1.74	–
Chrome orange, CP. bgs., divd. E. of Rockies ... lb.	.83	.89
Chrome yellow CP bbls., divd. E. of Rockies ... lb.	1.09	1.18
Chromic acid, 99¾%, flake dms., c.l., frt. equald ... lb.	1.18	–
grd., same basis ... lb.	1.25	–
Chromium acetate, soln., 7½%, dms., 500-2,000-lb. lots, works. lb.	.10	–
Chromium fluoride, dms., t.l., works ... lb.	.81	–
Chromium nitrate, dms., t.l., f.o.b. . lb.	1.45	–
10% metal soln., 500-lb. dms. same basis ... lb.	.74	.86
Chromium oxide, hydrated, 50-lb. bgs, c.l. ... lb.	5.50	–
pure, bgs., c.l. ... lb.	1.90	2.00
Cinnamic aldehyde, cns., dms ... lb.	1.85	2.45
Cinnamic alcohol, 25-lb. cns ... lb.	4.60	–
Cinnamon, H2 ... lb.	1.05	1.10
Cinnamon bark oil, bots ... lb.	88.00	95.00
Cinnamon leaf oil, dms ... lb.	2.80	–
Citral, nat., dms ... lb.	5.50	6.65
syn., 55-gal. dms f.o.b. ... lb.	3.18	–
Citric acid, USP, hydrous, gran., 250-lb. dms., t.l. ... lb.	1.19	–
Citric acid, USP, anhyd., gran. 250-lb. dms., t.l., del ... lb.	.86	–
Citric acid anhyde, powder bc. higher		
Citronella oil, Ceylon, dms ... lb.	2.12	2.24
Java, dms ... kilo	5.05	–
China, dms ... kilo	4.30	–
Citronellal, 25-lb cans ... lb.	3.85	7.40
Citronellol drums, f.o.b. ... lb.	3.88	–
Citronellyl acetate, dms ... lb.	5.50	6.50
Citronellyl formate, 25-lb. cns ... lb.	6.85	–
Civet, artif., bots ... lb.	20.00	–
nat. ... kilo	500.00	–
Clay ball, dom. air floated, bgs., c.l., Tenn. ... ton	49.00	–
dom., crushed, moisture-repellent, bulk, c.l., Tenn. ... ton	24.00	–
Clay China (see Kaolin).		
Cleaners, naphtha, 140° flash tanks., New Jersey or New York, divd ... gal.	1.40	–
Clove leaf oil Indonesian, reg. dms. kilo	3.15	–
Madagascar, reg. ... kilo	3.60	–
Clove bud oil ... kilo	24.00	–
Cloves, Brazil ... lb.	2.20	–
Zanzibar ... lb.	4.20	–
Madagascar ... lb.	2.20	–

CMC, technical, 96% minimum, low or medium vis., bgs., 24,000 lbs., f.o.b. Hopewell, Va., 100% basis ... lb.	1.25	–
detergent makers, f.o.b. manufacturing point ... lb.	.64	–
CMC, purif., high vis., (see Cellulose gum).		
Coaltar pitch, indust., liq., works . ton.	250.00	255.00
roofing, 140-155, Federal specification RP-381 Type 1, bulk works ... ton	350.00	–
Cobalt acetate, dms., t.l., frt. alld ... lb.	3.61	4.25
Cobalt carbonate, powd., dms., frt. alld ... lb.	6.61	8.16
Cobalt chloride, dms., 5,000 lbs. or more, ft. equald ... lb.	4.15	–
Cobalt hydrate, dms., t.l., frt. alld .. lb.	8.20	10.55
Cobalt metal, 99.5-99.9%, 250-kilo. dms., f.o.b. NY, Chicago. . lb.	11.70	–
Cobalt naphthenate, liq., 6% Co., dms., divd ... lb.	2.08	–
Cobalt nitrate, dms., t.l., frt alld ... lb.	2.74	3.45
Cobalt oxide, imp., black, 72-73% Co ... lb.	9.51	–
Cobalt oxide, imp., 70-71% Co ... lb.	9.78	–
Cobalt phosphate powd. 32.1% Co., dms., divd ... lb.	1.35	–
Cobalt resinate fused, 3% Co., dms ... lb.	.38½	–
Cobalt sulfate, cryst., bgs., 10,000 lbs. or more, frt. alld. E. ... lb.	2.81	3.54
monohydrate, dms., frt. alld ... lb.	4.56	6.02
Cobalt tallate, 6% Co., dms., divd. . lb.	2.16	–
Codilana bark, bls ... lb.	.40	.45
Cocoa butter, spot ... lb.	2.33	–
Coconut oil (See Oils, Fats & Waxes market report.).		
Coconut oil acids, distilled, t.c., f.o.b. ... lb.	.52	.58
double distilled, same basis ... lb.	.54	.63
Cod oil, f.o.b., Gloucester, Mass., bulk ... gal.	6.50	–
Codeine alkaloid, NF, 25-kilo lots, . kilo.	900.00	–
Codeine phosphate, USP, cns., 25-kilo lots ... kilo	640.00	–
Codeine sulfate, NF cns., 25-kilo lots ... kilo	775.00	–
Codliver oil, NF, dms ... gal.	6.50	7.25
Copaiba balsam, dms ... lb.	1.50	–
Copaiba oil, cns., dms ... lb.	3.75	–
Copper acetate, monohydrate, cryst., tech., dms., t.l., works ... lb.	.71	.74
Copper bromide, (cupric) 200-lb. dms., 100,000-lbs.-per-year contracts, works ... lb.	1.34	–
Copper carbonate, 55% Cu, dark, dense, 50-lb. bgs., c.l., t.l., works ... 100 lbs.	108.30	–
light, fluffy, 50 lb. bags, c.l., t.l., works ... 100 lbs.	109.30	–
Copper chloride (cupric), anhyd., c.l., works ... lb.	.90	–
Copper cyanide, tech. dms., 24,000-lb. lots or more ... lb.	2.30	2.62
Copper fluoborate, (cupric), liq. conc., dms., t.l., works, frt. equald ... lb.	.82	–
Copper gluconate, FCC grade, 25-lb. dm., frt. equald ... lb.	6.50	–
Copper metal electrolytic wire bars, divd., domestic, basis ... lb.	.62½	–
Copper naphthenate, liq., 8% Cu., dms., frt. alld ... lb.	1.19	–
Copper nitrate (cupric), purif., flake, dms., t.l., works ... lb.	.43¼	–
Copper oleate, solid, 8% Cu. dms., works frt alld ... lb.	.97	–
Copper oxide, black (cupric), dms., 80,000-lb. lots, works ... lb.	1.21	–
red (cuprous), dms., 97%, USN Type 1, (AA), 80,000-lb. lots, works ... lb.	1.19	1.20
red, 90%, Type 2, same basis ... lb.	1.15	–
Copper-8-quinolinolate, 10%, liq. emulsion, t.l., divd ... lb.	2.52	–
Copper sulfate, cryst., pentahydrate, 99% bgs., c.l., f.o.b. works ... 100 lbs.	46.45	–
CP, pentahydrate, cryst., dms., l.c.l., works ... 100 lbs.	60.00	–
monohydrated, 35% Cu, dms., c.l., works ... 100 lbs.	75.10	–
basic, bgs., c.l., works ... 100 lbs.	86.30	–
Coriander oil, USP, dms ... lb.	22.00	28.00
Coriander seed Moroccan ... lb.	.36	–
Rumanian ... lb.	.36	.37
Corn oil (See Oils, Fats & Waxes market report).		
Corn oil, crude, foots (soapstock), 95% acid; New York ... lb.	.13½	.14
Corn oil acid, dms ... lb.	.50	–
tanks ... lb.	.32	.40
Corn syrup 43 Be., tanks, f.o.b. works ... 100 lbs.	11.22	11.43
Cortisone acetate, USP, dms., 5 kilos or more ... gram.	.80	–
Cottonseed meal (See Oils, Fats & Waxes market report.)		
Cottonseed oil (See Oils, Fats & Waxes market report.)		
Cottonseed oil, acidulated (soap stock), acid, 95%, tanks, N.Y. ... lb.	.13	–
Cottonseed oil acids, dist., dms ... lb.	.63	–
tanks ... lb.	.55	–
Coumarin, NF X, cryst., over 500-lb. lots ... lb.	6.00	6.20
Cream of tartar (see Potassium bitartrate).		
Creosote, coaltar, grade 1, tanks, f.o.b. works ... gal.	1.15	1.18
soln., 80/20, tanks, same basis. gal.	1.134	1.17
p-Cresidine, fused, dms., works ... lb.	4.31	–
m-Cresol, 95-98%, dms., t.l., f.o.b. . lb.	1.71	–
tanks, same basis ... lb.	1.65	–
m,p-Cresol, 99%, dms., t.l., f.o.b. . lb.	.94	–
bulk, same basis ... lb.	.82	–
o-Cresol, 99% pure, dms., t.l., f.o.b. lb.	.87	–
bulk, same basis ... lb.	.75	–
98% pure, dms., t.l., f.o.b. ... lb.	.87	–
bulk, same basis ... lb.	.76	–
p-Cresol, 98%, dms., t.l., f.o.b. ... lb.	1.22	–
bulk, same basis ... lb.	.95	1.15
Cresylic acid, coaltar, dom., metapara content above 25%, resin and tricresyl phosphate grades, tanks, frt. alld ... lb.	.58	–
Cresylic acid, dom., metapara content 25% or less, tanks, frt. alld. lb.	.58	–
Crotonic acid, 200-lb. dms., t.l., f.o.b. divd ... lb.	1.60	–
Cryolite syn., bulk, c.l., works ... ton	510.00	550.00

Cube root, powd., 5% rotenone, basis, 50-lb bgs., t.l. works ... lb.	.60	
Cumene, bulk, contract f.o.b. ... lb.	.14	.14
Cumin seed, Indian, bgs ... lb.	.95	1.00
Cyanuric acid, dms., c.l., t.l. frt. equald ... lb.	1.16	1.37
Cyclamen aldehyde, 50% min. aldehyde content, dms ... lb.	4.85	–
96.5%, dms ... lb.	7.35	9.20
90-92%, dms ... lb.	7.85	–
Cyclohexane, bulk, barges, wks .. gal.	.9825	.9925
Cyclohexanol tech., tanks, f.o.b. ... lb.	.52	.66½
Cyclohexanone tech., tanks, f.o.b. works ... lb.	.55½	.58½
tanks, divd ... lb.	.565	–
Cyclohexylamine, tech., tanks, works ... lb.	.85	–

D

2,4-D acid, tech., 50-lb. bgs., c.l., t.l. works, frt. equald ... lb.	1.10	1.25
2,4-D butyl ester, tech. 55-gal. dms., c.l., t.l., works, frt. equald. . lb.	1.30	–
tanks, same basis ... lb.	1.25	–
2,4-D dimethylamine salt, t.c., t.l. works, frt. alld ... gal.	8.05	–
Decyl alcohol, mixed isomers, tanks, divd ... lb.	.32	–
perfume grade, dms ... lb.	.75	–
Defluorinated phosphate (tricalcium), feed grade, 18% P, c.l., bulk, f.o.b. works ... ton	195.00	228.00
Denatured alcohol, ethyl, CD18, CD19, tanks, divd. E. ... gal.	1.87	–
NOTE: Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.		
Denatured alcohol, ethyl,		
SD2B, tanks, divd. E. ... gal.	1.81	–
SD3A, tanks, divd. E. ... gal.	1.76½	–
SD23A, tanks, divd. E. ... gal.	1.86	–
SD23H, tanks, divd. E. ... gal.	1.89	–
SD29, tanks, divd. E. ... gal.	1.83	–
SD30, tanks, divd. E. ... gal.	1.72½	–
SD35A, tanks, divd. E. ... gal.	1.88½	–
Denatured alcohol, ethyl, brucine formula SD40, tanks, divd. E. ... gal.	1.83	–
ethyl, optional formula, SD40, tanks, divd. E. ... gal.	1.82½	–
For anhyd. alcohol on above formulae, prices are 12c. per gal higher.		
West Coast divd. prices are the same as Eastern prices, except in Idaho, Oregon and Washington where a 5c. differential on tankcars is maintained.		
Desoxyephedrine hydrochloride (See Methamphetamine hydrochloride)		
Detergent alkylate, straight chain dodecylbenzene, tanks, barges, f.o.b. ... lb.	.45	–
Dextrin, corn, canary dark, paper bgs., c.l., works ... 100 lbs.	28.04	–
white, paper bgs., c.l., works ... 100 lbs.	27.43	–
Dextrose, anhyd., coml., bgs., c.l., divd. New York ... 100 lbs.	41.10	–
USP special, 100-lb. bgs., c.l., divd. New York ... 100 lbs.	46.50	–
Dextrose, hydrated coml, bgs., c.l., divd. New York ... 100 lbs.	24.25	–
Western zone ... 100 lbs.	25.60	–
Diacetone alcohol, acetone free, tanks, divd ... lb.	.52	–
Diacetyl, flavor grade, dms ... lb.	9.25	15.00
Diammonium phosphate, fert. grade, min. 18% N, 46% P. bulk, c.l., f.o.b. Fla. works ... ton	140.00	145.00
Diammonium phosphate, feed grade, 18% N, 20% P, bulk c.l., f.o.b. Fla. works ... ton	240.00	–
bgs., same basis ... ton	250.00	–
Diammonium phosphate, tech., bgs., c.l., t.l., works, frt. equald ... 100 lbs.	52.50	–
food grade, bgs., c.l., t.l., same basis ... 100 lbs.	57.75	–
2,4-Di-tert-amylphenol, min. 95.5%, dms., c.l., t.l., works ... lb.	1.04	–
tanks, works ... lb.	.97	–
Diarylide yellow, OT, (yellow 14), dms., frt. alld ... lb.	6.20	–
o-Dianisidine dihydrochloride, 100%, MW 244, dms., t.l., divd ... lb.	4.25	–
2,6-Di-tert-Butyl-p-Cresol (see Butylated hydroxytoluene)		
Dibutyl fumarate, tanks, f.o.b. works ... lb.	.77	.85
Dibutyl maleate tanks, f.o.b. works. lb.	.63	.64
Dibutyl phthalate, tanks, works ... lb.	.54	.60
Dibutyl sebacate tanks, works ... lb.	1.72	1.89
Dibutylamine, dms., c.l., divd ... lb.	1.12	–
tanks, same basis ... lb.	1.06	–
2-5-Dichloroaniline, flake, dms., works ... lb.	2.00	–
fused, dms., works ... lb.	1.80	–
3,4-Dichloroaniline, tech. 88%, solid, dms., c.l., t.l., f.o.b. works . lb.	1.46	1.57
o-Dichlorobenzene, tech., 80%, dms., c.l., t.l., divd ... lb.	.52	–
tanks, same basis ... lb.	.45	–
98% refd., dms., c.l., same basis. lb.	.54	–
tanks, same basis ... lb.	.47	–
p-Dichlorobenzene, graded, 300-lb. dms., t.l., f.o.b., frt. equald. lb.	.51	.52
tanks, liq., same basis ... lb.	.43	.47
2,6-Dichloro-4-nitroaniline, dms., 10,000 lbs. or more, works. lb.	3.30	–
Dichlorophenoxyacetic acid (see 2,4-D).		
Dicyclohexylamine, dms., c.l., t.l., f.o.b. ... lb.	1.35	–
tanks, same basis ... lb.	1.25	–
Dicyclohexyl phthalate, bgs., c.l., t.l., divd ... lb.	1.25	–
Dicyclopentadiene, high-purity, 97-98%, tanks, works ... lb.	.35	–
Diethanolamine, tanks, frt. alld ... lb.	.44	.47
Diethanolamine lauryl sulfate, tanks, frt. alld ... lb.	.41	–
DDVP (see Dimethyl dichlorovinyl phosphate).		

Diethyl barbituric acid (see Barbital)		
D f.o.b. works ... lb.	1.40	–
Diethyl ethanolamine, CP dms., c.l., divd ... lb.	1.18	–
tanks, divd ... lb	1.10	–
Diethyl ethanolamine tech., 8c per lb lower		
Diethyl oxalate, dms., c.l., f.o.b works ... lb	1.80	–
Diethyl phthalate, tanks, f.o.b. ... lb	.69	.88
odorless cosmetic grades, t.l. works ... lb	.97½	–
Diethyl sulfate, tanks, frt. alld. E . lb	.59	–
Diethyl thiourea, dms., c.l., t.l., works ... lb	2.48	–
Di-2-ethylhexyl adipate (see Dioctyl adipate).		
Diethyl toluamide 95-97% min meta isomer, dms, t.l., f.o.b. works ... lb	2.75	–
N,N-Diethyl-m-toluidine, tech., liq., dms, c.l., f.o.b. ... lb.	3.18	–
tanks, same basis ... lb	3.10	–
Diethylamine, dms, c.l., divd ... lb	1.15	–
tanks, same basis ... lb	1.02	–
N,N-Diethylaniline, dms, c.l., t.l., f.o.b works ... lb	1.83	–
tanks same basis ... lb	1.75	–
Diethylbenzene, tanks, f.o.b. works lb	.98	–
Di-2-ethylhexyl azelate (see Dioctyl azelate)		
Di-2-ethylhexyl phthalate (see Dioctyl phthalate).		
Diethylene glycol, tanks, divd E . lb	.29½	.31½
Diethylene glycol monobutyl ether, dms., c.l., frt. alld E ... lb	.65	–
tanks, frt alld E ... lb	.57	–
Diethylene glycol monoethyl ether, dms., c.l., frt alld E ... lb.	.64	–
tanks, frt. alld. E ... lb	.58	–
Diethylene glycol monomethyl ether, dms., c.l., frt alld ... lb	.62	–
tanks, frt alld ... lb	.54	–
Diethylene glycol monobutyl ether acetate, dms, c.l., divd. E. .. lb	.80	–
tanks, divd. E ... lb	.72	–
Diethylene glycol monoethyl ether acetate, dms., c.l., frt. alld E. lb.	.80	–
tanks, frt. alld ... lb.	.72	–
Diethylenetriamine, tanks, f.o.b. works ... lb	1.60	1.61
Diethylenetriamine pentaacetic acid, pentasodium salt solution, tank-cars/tanktrucks, frt-equalized ... lb.	.45	–
Digitoxin, USP, imp., bots ... gram	2.60	3.00
Diglycol laurate, dms., ton lots ... lb	.32½	–
Diglycol stearate, dms., t.l. ... lb.	.62	.73
Dihydrazine sulfate, dms, works .. lb.	1.10	1.25
Dihydrostreptomycin sulfate, bulk kilo	48.00	–
Dihydroxyacetone, 50-kilo lots, works ... kilo	40.00	–
Di-isobutyl ketone, tanks, divd .. lb	.60	–
Di-isobutyl phthalate tanks, divd E lb.	.55	.57
Di-isobutylene, tanks, f.o.b Houston ... lb.	.37	–
Di-isodecyl phthalate, tanks, divd .. lb.	.40	.40½
Di-isononyl phthalate, tanks, divd. lb.	.40	–
Di-iso-octyl azelate, tanks, divd. E lb	.99	1.07
Di-iso-octyl phthalate, tanks, divd. . lb.	.40	–
Di-isopropanolamine, dms., c.l., frt. alld ... lb	.66½	–
tanks, same basis ... lb.	.58½	–
Di-isopropylamine, dms, c.l. divd .. lb.	1.17	–
tanks, same basis ... lb.	1.07	–
Dilauryl 3,3-thiodipropionate, dms., t.l., frt. alld ... lb.	1.89	–
Dill oil, USP, dms ... lb.	7.00	8.25
Dimethyl anthranilate, dms ... lb.	15.80	–
Dimethyl benzyl carbinyl acetate, 25-lb. dms ... lb.	6.95	–
Dimethyl carbonate, dms, t.l., f.o.b. works ...	.90	–
Dimethyl dichlorovinyl phosphate, 55-gal dms., f.o.b ... lb.	1.80	1.90
Dimethyl ethanolamine, anhyd., dms., c.l., divd. E ... lb.	1.15	1.18
tanks, divd. E ... lb.	1.07	1.10
Dimethyl ether, aerosol grade, tanks, divd ... lb.	.38	–
Dimethyl phthalate, tanks, f.o.b works ... lb.	.65	–
Dimethyl sebacate, tanks, f.o.b works ... lb.	2.48	2.68
Dimethyl sulfate, rel. dms., c.l., f.o.b. works ... lb.	.57	–
tanks ... lb.	.46	–
Dimethyl sulfide, tanks, works ... lb.	.59	–
Dimethyl sulfoxide, tanks, works .. lb.	.76	–
Dimethylacetamide, bulk f.o.b. ... lb.	.67½	–
Dimethylamine, 25% soln., tanks, frt. equald., 100% basis ... lb.	.63½	–
40% soln., tanks, frt. equald., 100% basis ... lb.	.63½	–
anhyd., tanks, frt equald ... lb.	.54½	–
N,N-Dimethylaniline, t.l., f.o.b ... lb.	1.03	–
t.l. dms ... lb.	1.11	–
N,N-Dimethylformamide, dms., c.l., t.l., f.o.b., works ... lb.	.57	–
tanks, same basis ... lb.	.49	–
2,4-Dinitroaniline, tons-lots, f.o.b. .. lb.	1.22	–
Dinitroaniline, orange toner, CP, bgs., divd. E. of Rockies ... lb.	6.20	–
2,4-Dinitrochlorobenzene, crystallizing at 47°, t.l., f.o.b. Charlotte, N.C. ... lb.	.98	–
2,4-Dinitrophenol, 250-lb. dms., f.o.b. Charlotte, N.C. ... lb.	1.95	–
Dinitrotoluene, mix., tech. f.o.b. works ... lb.	.30	.43
2,4-Dinitrotoluene, dms., c.l., t.l., works ... lb.	1.25	–
tanks, works ... lb.	1.20	–
Dioctyl adipate, tanks, frt. alld. E. .. lb.	.61	.70
Dioctyl azelate, tanks, divd. E. ... lb.	.99	1.04
Dioctyl phthalate, tanks, divd ... lb.	.40	.45
Dioctyl sebacate, 99%, tanks, f.o.b. works ... lb.	1.47	–
1,4-Dioxane, tanks, frt. alld. E. ... lb.	1.19	–
t.l., same basis ... lb.	1.21	–
Dipentaerythritol, bgs., c.l., t.l., divd. E. ... lb.	1.42	–
Dipentene steam-dist., tanks, f.o.b. Fla. works ... lb.	.25	.30
sulfate turpentine derived, tanks. lb.	.25	.28
Dip oil (see Tar acid oil).		
Diphenhydramine hydrochloride, USP dom., 1,000-kilo lots, dms., divd ... kilo	20.00	24.00
Diphenyl, 99.9%, bgs., c.l., t.l., works ... lb.	.74	–
tanks, works ... lb.	.65	–

Diphenyl oxide, tech. grade, tanks . lb	1.11	1.20
Diphenylamine, refd., flake, bgs., t.l., works, frt. equald ... lb	1.25	–
molten, tanks, works ... lb.	1.00	–
octylated, flake, bgs, t.l., f.o.b works ...	7.68	–
Diphenylguanidine, bgs, t.l., frt. alld ... lb	2.52	
Diphenylhydantoin-sodium USP. dms ... lb.	5.00	5.60
Diphenylmethane 4,4'-di-isocyanate, polymeric, bulk, c.l., min. frt. alld ... lb.	.91	–
Dipropylene glycol, tanks, frt. alld . lb.	.45	–
Dipropylene glycol monomethyl ether, dms., c.l., divd ... lb.	.54	–
tanks, same basis ... lb.	.46	–
Di-o-tolylguanidine, powd, dms., t.l., frt. alld ... lb.	2.92	–
Di-o-tolylthiourea, tech, solid, dms., t.l., frt. alld ... lb.	3.11	–
Ditridecyl phthalate, tanks, divd. . lb	.64	.65
Diundecyl phthalate, tanks, divd. . lb	.61	.65
Divinylbenzene, 100% basis, tanks works ... lb.	2.75	2.80
dms, 100% basis ... lb.	3.00	2.70
1-Dodecanol, syn., tanks, f.o.b. ... lb	.76½	–
Dodecenyl succinic anhydride, dms, c.l., t.l., divd ... lb.	.88	–
Dodecylbenzene (see Detergent Alkylate).		
Dodecylphenol, tanks, min. frt. alld. E ... lb.	.48	.53
Dyes, coaltar, certified colors for food, drugs and cosmetics, 100 lb. and over, frt. prepaid or alld.		
Blue, FD&C, No. 1 ... lb.	21.20	22.60
No. 2 ... lb.	29.15	29.22
Green, FD&C, No. 3 ... lb.	49.50	66.00
Red, FD&C, No 3 ... lb.	24.00	24.50
Yellow, FD&C, No. 5 ... lb.	7.45	7.85
No. 6 ... lb.	6.45	6.75
Dyes, coaltar, certified colors for drugs and cosmetics. 100-lb. lots divd.		
Green, D&C, No. 5 ... lb.	38.50	–
No. 6 ... lb.	42.80	–
Red, D&C, No. 4 ... lb.	18.85	–
No. 17 ... lb.	38.90	–
No. 19 ... lb.	38.25	–
No. 22 ... lb.	12.45	–
No. 28 ... lb.	59.95	–
No 33 ... lb.	48.95	–
Yellow, D&C, No. 7 ... lb.	21.00	–
No 8 ... lb.	20.55	–
No. 10 ... lb.	48.80	48.85
No. 11 ... lb.	35.25	–
Dyes, coaltar, for general use in cloth and paper dyeing (by Color Index Name). f.o.b. works		
A Blk 1 Blue black ex. conc. ... lb.	5.75	–
Dyes, A Bl 9 Blue 2G ... lb.	5.46	–
A Bl 45 Alizarine Blu SAP 150% . lb.	19.85	–
A Bl 90 Alizarine Br. Cy G ... lb.	14.13	–
A Bl 113 Navy 5R. ... lb.	6.55	–
A Gr 16 Gast 2G 333% ... lb.	22.12	–
A Or 7 11 ... lb.	3.72	–
A Or 8 RO Ex. Conc. ... lb.	4.00	–
A Or 10 Wool Or G. ... lb.	4.30	–
A Or 74 Metallized Or GNA ... lb.	6.15	–
AR 2G ... lb.	5.13	–
AR 14 Azo Rubine 133% ... lb	8.85	–
AR 18 Scarlet 4R Conc ... lb.	5.45	–
AR 88 Fast Red A Conc ... lb	6.85	–
AR 151 Silk Red 3B Conc. ... lb.	4.50	–
AV 17 5BNS Conc. ... lb.	9.75	–
AV 49 4BNS Conc. ... lb.	12.22	–
AY 17 Fast Light Yell 2G ... lb	5.69	–
AY 23 Tartrazine Ex Conc. ... lb.	6.18	–
B Bl 9 Zinc Free ... lb.	16.40	–
B Br 4 Bismark Brown R Ex. Conc lb.	4.42	–
B G 1 Jade Crystals ... lb.	9.55	–
B Gr 4 Malachite Green Crystal. . lb.	6.90	–
B V 1 Methyl Violet Crystals ... lb.	6.80	–
B V 10 Rhodamine B Ex. ... lb.	10.95	–
B Y 2 Bond Yell SFA 150% ... lb.	10.10	–
D Bl 1 Sky Blue 6B Conc. ... lb.	4.62	–
Ex. Conc. 300% ... lb.	9.25	–
D Bl 8 Azurine G Conc. ... lb.	9.45	–
D Blk 22 Fast Black GR ... lb.	2.85	–
Fast Black GR 150% ... lb.	4.28	–
D Br 230 Resin Fast Brown BRNB 200% ... lb.	7.23	–
D Gr 26 Resin Fast Green GL ... lb.	9.16	–
D R 2 4B Ex. Conc. ... lb.	7.98	–
D R 31 Brilliant-Red 12B Conc. . lb.	6.16	–
D R 80 Fast Red 8BLN ... lb.	6.15	–
D R 81 Paper Red 8BLP ... lb.	6.85	–
D R 251 Fast Scarlet AV ... lb.	6.25	–
D Or 102 Fast Orange WSP Liq. . lb.	2.47	–
WS. Conc. 150% ... lb.	11.25	–
D Y 4 Brilliant Paper Yell 3GX 125% ... lb.	4.69	–
Brilliant Paper Yell 3GX Liq. ... lb.	1.75	–
D Y 11 Stilbene Yellow GA. Ex. Conc. ... lb.	3.03	–
D Y 41 Fast Yellow RGL Conc. 200% ... lb.	9.75	–
D Y 27 Resin Fast Yellow L5G ... lb.	14.40	–
Dis R 1 Scarlet BA ... lb.	4.26	–
Dis R 91 Pink REL 200% ... lb.	21.00	–
Dis Y 3 Yellow G ... lb.	3.65	–
Dis Y 54 Yellow 3G ... lb.	6.84	–
Dis Or 3 Orange GRA ... lb.	4.91	–
Dis Or 37 Orange OB ... lb.	3.77	–
Dis V 1 4RN Paste ... lb.	7.85	–
Dis V 26 Bordeaux BV 200% ... lb.	17.25	–
Dis B1 27 Blue BGLF ... lb.	10.05	–
Dis B1 102 Blue GFDA 300% ... lb.	22.80	–
50% Paste ... lb.	4.10	–
V G 1 Jade Green Double Paste . lb.	5.50	–
V Blk 25 Olive TA Paste ... lb.	5.85	–

E

Endrin, tech., 95-99%, dms., t.l. ... lb.	7.00	–
Ephedrine, syn. anhyd., USP, 80-oz. lots ... oz.	1.25	–
Ephedrine hydrochloride, NF, cryst., less than 1,000 kg. ... kilo	38.25	40.25
Ephedrine sulfate, USP, cryst., dms., less than 1,000 kilos ... kilo	43.00	45.25
Epichlorohydrin, tanks, divd ... lb.	.96	

Epinephrine base, syn, USP, bots., 100-gram lots ... gram	.60	–
Epoxy resin, liquid, bulk tanks, divd .. lb.	1.31	1.41
Solid, bgs., t.l. ... lb.	1.28½	1.33½
Epsom salt (see Magnesium sulfate).		
Erythorbic acid, powd., gran., 100 lb. dms, t.l. or mixed t.l. f.o.b. works ... lb.	4.10	4.25
Ester gum, gum-rosin type, dms., c.l., divd., Ill., Md., Ky., E. States, Minneapolis, N.C., Ohio, St. Louis, St. Paul, Va., W. Va. lb.	.75	–
Ester gum, wood-rosin type, dms., c.l., same basis ... lb.	.43	.46
Ethyl acetate, syn., 85-88%, tanks, divd ... lb.	.41	.41½
99%, tanks, divd ... lb.	.41½	.42½
Ethyl acetoacetate dms., c.l., divd. . lb.	1.13	–
tanks, divd ... lb.	1.05	–
Ethyl acrylate, tanks, frt alld ... lb.	.66	–
Ethyl alcohol, syn., 190 pf., USP tax free, tanks, divd. E. ... gal.	1.55	–
Ethyl alcohol, absolute, 200 pf., tax free prices 12c. higher than 190 pf., tax free.		
Ethyl alcohol, fermentation, tanks, f.o.b. works ... gal.	1.06	1.28
Price range attributable to various state tax incentives.		
Ethyl alcohol, denat. (see Denatured alcohol, ethyl).		
Ethyl p-aminobenzoate, NF (see Benzocaine).		
Ethyl benzoate, dms ... lb.	1.35	1.50
Ethyl bromide, tech., 98%, dms., c.l., frt. alld. E. ... lb.	.76	–
Ethyl butyrate, dms ... lb.	1.35	1.50
Ethyl cellulose, standard vis., 7 cps. bgs., t.l., frt. equald. E. ... lb.	4.55	–
standard vis., 10, 20, 45, 100 cps., t.l., frt. equald. E. ... lb.	4.17	4.22
medium vis., 50, 70, 100 cps., t.l., frt. equald. E. ... lb.	4.25	–
USP vis., 7 cps bgs., t.l., frt. equald. E ... lb.	4.88	–
USP 10,20,45,100 bgs., t.l., frt. equald. E ... lb.	4.59	4.69
VSP (medium) 50,70,100 bgs., t.l., Frt. equald. E. ... lb.	4.51	–
Ethyl chloride, tech., cyls., frt. alld. . lb.	.26	.28½
tanks, frt. alld ... lb.	.24	.26½
Ethyl cinnamate, dms ... kilo	41.00	–
Ethyl ethanolamines, mixed. dms., t.l., divd. E. ... lb.	1.23	–
tanks, divd. E. ... lb.	1.15	–
Ethyl ether, refined, tanks, f.o.b. ... lb.	.46	–
Ethyl hexanoate, dms ... lb.	4.25	4.75
2-Ethylhexoic acid, dms., c.l., t.l., divd. E. ... lb.	.63	–
tanks divd. E. ... lb.	.57	–
2-Ethylhexyl acrylate, straight or mixed, tanks, frt alld. E. . lb.	.79.5	–
2-Ethylhexyl alcohol, tanks, divd .. lb.	.35	–
Ethyl iodide, cbys., works ... lb.	6.25	–
Ethyl linalool, syn. 55-gal. dms ... lb.	10.60	–
Ethyl linalyl acetate, syn., 55-gal. dms ... lb	10.85	–
Ethyl methacrylate, tanks, frt. equald ... lb.	1.06	–
n-Ethyl morpholine, dms, t.l., frt. alld ... lb.	2.00–	
tanks, same basis ... lb.	1.92	–
n-Ethyl-a-naphthylamine, dms., works ... lb.	1.04	–
Ethyl oxalate (see Diethyl oxalate).		
Ethyl parathion (see Parathion, ethyl)		
Ethyl silicate dist. (see Tetraethyl orthosilicate).		
Ethyl silicate, 40% available SiO_2, dms., t.l., f.o.b. works ... lb.	1.45	1.46
tanks, f.o.b. works ... lb.	1.39	–
N-Ethyl-m-toluidine, tech., liq., dms., c.l., f.o.b. ... lb.	3.18	–
tanks, same basis ... lb.	3.10	–
N-Ethyl-o-toluidine, dms ... lb.	2.85	2.90
Ethyl vanillin 100 lb. dms., 500 lbs. or more ... lb.	13.50	–
25 lb. dms., 500 lbs. or more ... lb.	13.75	–
100 lb. dms., less than 500 lbs ... lb.	14.00	14.50
Ethylamine (see Mono-Di- and Tri-)		
N-Ethylaniline, dms., c.l., t.l., f.o.b. works ... lb.	1.66	–
tanks, same basis ... lb.	1.58	–
Ethylbenzene, bulk, f.o.b. Houston, Tex. ... lb.	.22	.23
Ethylene, contract, divd ... lb.	.18	.18½
Ethylene brassylate, dms ... lb.	16.00	18.25
Ethylenediamine, 99%, tanks, f.o.b. works ... lb.	1.30	1.305
Ethylenediamine dihydriodide ... lb.	7.55	9.25
Ethylenediamine tetraacetic acid, tetrasodium salt, soln., t.c., t.t., frt. equald ... lb.	.36½	–
Ethylene dibromide dms., c.l., frt. equald ... lb.	.38	.46
tanks, frt. equald ... lb.	.32	.42
Ethylene dichloride, tanks, f.o.b. works ... lb.	.17	.17¼
Ethylene glycol, indust., tanks, frt. alld ... lb.	.31	–
Ethylene glycol, monobutyl ether, tanks, divd. E. ... lb.	.41½	–
Ethylene glycol monoethyl ether, tanks, divd. E. ... lb.	.51	–
Ethylene glycol monomethyl ether, tanks, divd. E. ... lb.	.34	–
Ethylene glycol monobutyl ether acetate, tanks, frt. alld. E. ... lb.	.64½	–
Ethylene glycol monoethyl ether acetate, tanks, ft. alld., E. ... lb.	.55½	–
Ethylene glycol monomethyl ether acetate, tanks, frt. alld. E. ... lb.	.43	–
Ethylene oxide, tanks f.o.b. ... lb.	.35	.45
Ethylene trichloride (see Trichloroethylene).		
Eucalyptol, NF, dms. Portuguese . kilo.	7.50	–
Eucalyptus oil, Chinese ... kilo	3.10	–
Eugenol, USP, dms ... kilo	7.55	–

F

Fennel oil, sweet, USP, cns ... kilo	9.00	–
Fennel seed, Egypt ... lb.	.37	–
Indian ... lb.	.80	.82
Fenugreek seed, Indian, bgs ... lb.	.25	.32
Ferric chloride anhyd., tech., 350-lb. dms., c.l. works ... 100 lbs.	36.00	–
Ferric chloride, 42 Be. photo grade dms., c.l. works ... 100 lbs.	9.10	–

Ferric chloride, sewage grade, 100 percent basis, f.o.b. works, tank works ... ton	176.00	255.00
Ferric nitrate, cryst., dms., t.l., f.o.b. lb.	.64	–
Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works ... lb.	1.65	–
Ferric oxides (see Iron Oxides).		
Ferric phosphate, FCC insoluble powder, dms, 10,000 lbs ... lb.	1.10	1.15
Ferric pyrophosphate, soluble, purif., pearls, 50-lb. dm. ... lb.	1.11	–
Ferric resinate, precip., 6.75% Fe. dms., ton lots frt. alld ... lb.	.45	–
Ferric sulfate, partly hydrated, 100-lb. bgs., c.l., works ... ton	141.00	–
bulk, works ... ton	117.00	–
Ferric ammonium citrate, NF, brown, green gran. 100 lb. dms., 2,000 lb. min., f.o.b. shipping pt. ... lb.	2.00	2.95
2c. per pound surcharge for shipments W. of Denver		
Ferric-ammonium oxalate, fine gran., 250-lb. dms., t.l., f.o.b. works. E. ... lb.	.42	–
Ferric hydroxyethylene diaminetriacetic acid, industrial grade, sodium salt, soln., 4.5% Fe, t.c., t.t., f.o.b. works ... lb.	.55	–
agricultural grade, sodium salt solution, 5% Fe, t.c., t.t., f.o.b. works ... lb.	.64	–
Ferrous fluoborate liq. conc., dms., t.l., works, frt. equald ... lb.	.64	–
Ferrous gluconate, NF, t.l., works E. lb.	2.25	–
Ferrous naphthenate, liq., 6%, Fe. dms., divd ... lb.	1.17	–
Ferrous sulfate, moist, bulk, t.l. f.o.b. works ... ton	30.00	–
heptahydrate, gran., bulk, t.l., f.o.b. works ... ton	145.00	150.00
monohydrate, gran., bulk., t.l., f.o.b. works ... ton	170.00	180.00
USP, powd., 400-lb. dms ... lb.	.49	–
cryst., 250-lb. dms ... lb.	.61	–
Fir oil, Canada dms ... lb.	10.00	–
Siberia, dms ... lb.	12.75	–
Fish oil, refd., alkali, tanks, c.l. ... lb.	.29	–
kettle-bodied, tanks ... lb.	.32	.36
light, cold-pressed, dms., c.l. ... lb.	.34	–
tanks ... lb.	.26	–
Fishmeal, dom., menhaden, 60% protein grd., bulk, f.o.b. Atlantic port ... ton	295.00	–
f.o.b. Gulf port ... ton	290.00	–
Imp., Chilean, 65% protein min., bulk, c.l., t.l., ex whse., f.o.b. Atlantic and Gulf ports ... ton.	285.00	–
Fluoboric acid, dms., t.l., works, frt. equald ... lb.	.70	–
Fluorocarbon, No. 11 bulk, tanks, delvd ... lb.	.57	.64
No. 12, bulk, same basis ... lb.	.68	.74
No. 22, bulk, same basis ... lb.	1.05	1.14
No. 113, bulk, same basis ... lb	.89	.93½
No. 114, bulk, same basis ... lb.	1.02	1.08
Fluosilicic acid (see Hydrofluosilicic acid).		
Formaldehyde, 37% methanol free (uninhibited) divd., gulf ... lb	.088	.0905
44-45% (1% methanol) tanks, divd ... lb.	.1015	.1065
37% (inhibited 7% methanol, divd ... lb.	.0945	.1025
37% (inhibited 11-15% methanol) tanks, divd ... lb.	.1055	.1080
Formamide, tanks, f.o.b. ... lb.	.39	–
dms., same basis ... lb.	.44	–
Formic acid 90% tanks, f.o.b. works ... lb.	.36½	–
95% dms, c.l., works ... lb.	.51½	–
Fructose, cryst., 18,000 kilos or more, dms ... lb.	.90	1.03
Fumaric acid, food grade, bgs t.l., frt. equald. E. ... lb.	.75½	.77½
tech. grade, bgs., t.l., f.o.b. frt. equald ... lb.		.62½
Furfural, tanks, f.o.b. Cedar Rapids, Iowa, and Belle Glade, Fla. lb.	.76	–
Furfuryl alcohol, tanks, f.o.b. Memphis, Tenn. and Omaha, Neb. ... lb.	.72	–

G

G salt, dms., frt. alld. 100% basis ... lb.	2.30	–
Gallic acid, 400-kilo lots ... kilo	23.05	–
Garlic oil, dms., Egyptian ... kilo	85.00	105.00
Gelatin, edible, 100 AOAC test, dms., t.l.l., divd ... lb.	1.60	1.75
125 AOAC test, dms., l.t.l. ... lb.	1.75	1.85
150 AOAC test, dms., l.t.l. ... lb.	1.85	1.95
175 AOAC test, dms., l.t.l. ... lb.	1.95	2.05
200 AOAC test, dms., l.t.l. ... lb.	2.05	2.15
225 AOAC test, dms., l.t.l. ... lb.	2.10	2.25
250 AOAC test, dms., l.t.l. ... lb.	2.20	2.35
275 AOAC test, dms., l.t.l. ... lb.	2.30	2.45
300 AOAC test, dms., l.t.l. ... lb.	2.50	2.65
Gentian violet (see Methyl rosaniline chloride).		
Geraniol, syn., 90-92%, dms ... lb.	5.25	–
nat., 90-92%, dms ... lb.	3.50	–
syn. 96-98%, dms ... lb.	5.75	–
Geranium oil, Moroccan ... lb.	24.00	27.50
Bourbon ... lb.	33.00	38.00
Chinese ... kilo	67.00	85.00
Egypt ... lb.	55.00	–
Turkish (see Palmarosa oil).		
Geranyl acetate, dms ... lb.	5.44	6.00
nat., dms ... lb.	10.95	–
Geranyl formate, syn., dms ... lb.	6.60	–
nat., dms ... lb.	15.95	–
Gilsonite, g.p., bulk, c.l., f.o.b. Bonanza, Utah ... ton	180.00	–
selects, same basis ... ton	180.00	–
Ginger, Cochin, bgs ... lb.	.65	–
Chinese sliced ... lb.	.55	.70
Ginger oil, Chinese ... kilo	39.00	46.00
Indian ... kilo	44.00	48.00
Ginger oleoresin, NF, bots ... lb.	30.00	–
Glauber's salt (see Sodium sulfate).		
Gluconic acid tech. 50% dms., c.l., t.l., f.o.b. works ... lb.	.50	–
tanks, same basis ... lb.	.44	–

CHEMICAL PRICES

WEEK ENDING SEPT 26, 1986

Glue, bone, extracted, green, jellygrams, bgs., c.l. ... lb.	–	–
85 jellygrams, bgs., c.l., f.o.b. .. lb.	.86	–
115 jellygrams, bgs., c.l., f.o.b. .. lb.	.78	–
135 jellygrams, bgs., c.l., f.o.b. .. lb.	.77	–
164 jellygrams, bgs., c.l., f.o.b. .. lb.	.79	–
192 jellygrams, bgs., c.l., f.o.b. .. lb.	.87	–
220 jellygrams, bgs. c.l. f.o.b. ... lb.	.93	–
Glue, hide,		
106 jellygrams, bgs., t.l., f.o.b. ... lb.	.80	–
135 jellygrams, bgs., t.l., f.o.b. .. lb.	.85	–
164 jellygrams, bgs., t.l., f.o.b. .. lb.	.90	–
192 jellygrams, bgs., t.l., f.o.b. .. lb.	.95	–
222 jellygrams, bgs., t.l., f.o.b. .. lb.	1.00	–
251 jellygrams, bgs., t.l., f.o.b. .. lb.	1.05	–
283 jellygrams, bgs., t.l., f.o.b. .. lb.	1.10	–
315 jellygrams, bgs., t.l., f.o.b. .. lb.	1.16	–
347 jellygrams, bgs., t.l., f.o.b. ... lb.	1.20	–
379 jellygrams, bgs., t.l., f.o.b. .. lb.	1.25	–
411 jellygrams, bgs., t.l., f.o.b. .. lb.	1.30	–
444 jellygrams, bgs., t.l., f.o.b. .. lb.	1.35	–
477 jellygrams, bgs., t.l., f.o.b. .. lb.	1.40	–
Glutamic acid, 99½% dms., 100-lb. lots, frt. alld ... kilo	6.65	–
Glycerine, nat., refd., USP, CP 99½% tanks, divd ... lb.	.89½	–
USP, CP, nat. 96%, tanks, divd. . lb.	.87¼	–
Syn. 96%, tanks divd ... lb.	.89¼	–
Syn. 99.5%, tanks divd ... lb.	.91	–
Glycine (see Aminoacetic acid).		
Glyceryl guaiacolate. 100-lb. fib. dms. f.o.b. ... kilo	14.50	–
Glycolic acid (see Hydroxyacetic acid)		
Glyoxal 40% soln., bulk, tanks, divd ... lb.	.44½	–
Grapefruit oil, Fla., dms ... lb.	2.75	–
Calif., dms ... lb.	2.25	–
Israeli ... lb.	2.25	–
Graphite, amorph, powd., bgs., dms., ex whse ... lb	.16	.40
cryst, 88-90%, powd., bgs., dms., ex whse ... lb.	.30	.60
Graphite, cryst., 90-92%, powd., bgs., dms, ex whse ... lb.	.40	.75
95-96% powd, bgs., dms., ex whse ... lb.	.60	.90
Graphite, amorph., cryst., 97% and up, powd., bgs., dms, ex whse ... lb	.80	1.20
Graphite, flake, No. 1, 90-95%, bgs., dms., ex whse ... lb.	.65	.75
No. 2, 90-95%, bgs., dms, ex whse ... lb.	.65	.75
Grease (See Oils, Fats & Waxes market report)		
Grease oil (See Lard oil)		
Guaiacol, tech., 500-lb dms., 24,000 lb. min., f.o.b. Wallingford, Conn ... lb	2.70	–
NOTE: Purified grades are 10c. higher		
Guaiacwood oil, dms ... lb.	2.50	–
Guar gum, edible, bgs., c.l., f.o.b. ship't. pt. ... lb.	.50	.75
Indust, bgs., high viscosity, c.l., same basis ... lb.	.50	.85

H

Heliotropin, dms ... lb.	8.00	8.25
Hemlock oil (see Spruce oil).		
Henbane leaves, bls ... lb.	.65	–
Heptane, indust., tanks, f.o.b. Beaumont, Tex ... gal.	1.07	–
95%, tanks, f.o.b. Houston, Tex ... gal.	1.18	–
Heptanoic acid, syn., tanks, f.o.b. ...	.65	–
1-Hexadecanol, syn., tanks, f.o.b. .. lb.	.43½	–
Hexahydrophthalic anhydride, tech. dms., l.t.l., f.o.b. works ... lb.	1.42	–
Hexamethylenetetramine, gran. bgs., c.l., t.l., works ... lb.	.55	–
gran. dms., c.l., t.l., works .. lb.	.59	–
pdr. bgs., c.l., t.l., works ... lb.	.60	–
powd. dms, c.l., t.l., works .. lb.	.63	–
Hexane, indust., tanks, works ... gal.	1.01	1.15
95%, tanks, f.o.b. Houston, Tex ... gal.	1.12	–
1-Hexanol, syn., tanks, f.o.b. ... lb.	.50	–
Hexyl alcohol, mixed isomers, tanks ... lb.	.82	–
p-Hexyl methacrylate, dms., c.l., works ... lb.	.75½	–
Hexylene glycol, tanks, divd ... lb.	.50	–
Hexylresorcinol, USP, dms., 25-lb. lots or more, frt. alld ... lb.	30.00	–
Homatropine hydrobromide, USP, 10-100-oz. lots, bots ... oz.	10.25	11.30
Homatropine methylbromide, USP, 10-250 oz. lots, bots ... oz.	9.70	10.70
Horehound herb, bls ... lb.	.25	.28
Hydrazine hydrate, 85%, t.l., frt. alld ... lb.	1.54	–
55-gal. dms., t.l., frt. alld ... lb.	1.61	–
Hydriodic acid, purif., 47%-57%, 2-cbys., f.o.b. works ... lb.	7.60	–
Hydroabietyl alcohol, tech., solid dms., c.l., f.o.b. zone 1 ... lb.	.65	–
tanks, f.o.b. zone 1 ... lb.	.60	–
Hydrobromic acid, 48% dms., c.l., t.l., f.o.b. ... lb.	.38½	–
Hydrochloric acid, anhyd. (see Hydrogen chloride).		

CHEMICAL PRICES

WEEK ENDING SEPT 26, 1986

Hydrochloric acid, 20° Be, tanks, works, East ... ton	55.00	65.00
Midwest ... ton	60.00	70.00
Gulf Coast ... ton	57.00	-
West Coast ... ton	90.00	105.00
22° acid, same basis, East ... ton	68.00	76.00
Midwest ... ton	66.00	70.00
Gulf Coast ... ton	83.50	-
West Coast ... ton	100.00	115.00

NOTE: Prices vary and are either freight collect freight equalized depending on producer and location.

Hydrocortisone acetate, micronized, dms., 25 kilos or more . gram	.70	-
Hydrocortisone, alcohol, micronized, dms., 25 kilos or more . gram	.70	-
Hydrofluoric acid, anhyd. (see Hydrogen fluoride)		
Hydrofluoric acid, aqueous, 70% tanks., f.o.b. frt. equald ... 100lbs	43.00	-
Hydrofluosilicic acid, 15-gal. dms., t.l., works, 30% basis ... ton	-	-
tanks, 100% basis, works ... ton	190.00	210.00
Hydrogen bromide, anhyd. cyls., extra, 30,000-lbs., f.o.b. works . lb.	7.00	-
Hydrogen chloride, anhyd., 50-lb. cyls., c.l., works ... lb	.65	-
600-lb. cyls., c.l., same basis . lb.	.62	-
Hydrogen chloride, anhyd., tube trailers, seller's trailer, min. 100,000 lbs. a year ... lb.	.37	-
tube trailers, buyer's trailer ... lb.	.27	-
Hydrogen chloride anhyd., tanks, works ... ton	270.00	-
Hydrogen cyanide, liq., 99.5%, tanks, works ... lb.	.50	-
Hydrogen fluoride, anhyd., tank cars c.l., f.o.b., frt. equald ... lb.	.6875	-
Hydrogen peroxide, 35% tech., tanks, works, ft. equald ... lb.	.2325	-
50% tankcars, frt. equald ... lb.	.3225	-
70%, tankcars frt. equald ... lb.	.45	-
Hydrogen sulfide, liq., 99.25% min. seller's tanks, works ... lb.	.12	.13
170 lb. cylinders ... lb.	2.27	-
Hydroquinone, photo grade, consumers, c.l., t.l., divd ... lb.	2.54	-
tech., dms. c.l., divd ... lb.	1.95	-
Hydroxyacetic acid, tech., 70%, tanks, Belle, W. Va ... lb.	.49½	-
Hydroxylammonium sulfate, dms., t.l., f.o.b. ... lb.	.83	-
p-Hydroxybenzene sulfonic acid (see p-Phenolsulfonic acid).		
Hydroxybutyl methylcellulose (visc. 12,000 cps.) 50 lb. bags, tl., cl. 30,000 lb min., divd., zone 1 ... lb.	2.10	-
Hydroxycitronellal dimethyl acetal, dms ... lb.	16.55	-
p-Hydroxydiphenylamine, dms., t.l., f.o.b. works ... lb.	4.10	-
Hydroxycitronellal, natural, dms. ... lb.	9.40	-
pure, dms. ... lb.	13.60	-
extra grade, dms. ... lb.	14.80	-
syn, dms. ... lb.	9.50	-
Hydroxyethyl cellulose, t.l., divd ... lb.	2.07	2.12
Hydroxyethyl methylcellulose (visc. 5,000 through 45,000 cps.) 50 lb. bags, t.l., c.l., 30,000 lb. min., divd., zone 1 ... lb.	2.73	-
Hydroxypropyl methylcellulose, premium, U.S.P. (visc. 4,000 through 15,000) 50 lb. bags, t.l., c.l., 30,000 lb. min., divd., zone 1 ... lb.	2.67	-
Hydroxypropyl methylcellulose, U.S.P (visc. 50 through 100 cps) 50 lb. bags, t.l., c.l., 30,000 lb. min., divd., zone 1 ... lb.	2.99	-
Hydroxypropyl methylcellulose (visc. 4,000 through 15,000 cps) 50 lb. bags, t.l., c.l., 30,000 lb. in., divd., zone 1 ... lb.	2.17	-
Hydroxypropyl methylcellulose (visc. 50 through 100 cps) 50 lb. bags, t.l., c.l., 30,000 lb. min., divd., zone 1 ... lb.	2.64	-
8-Hydroxyquinoline (see Oxyquinoline)		
Hypophosphorous acid, purif., 50% dms., c.l. works ... lb.	3.15	-

I

Ichthammol, NF, 200-kilo dms ... lb.	4.25	4.50
Iminodiacetic acid, 98% min., dms., c.l., t.l., works ... lb.	3.00	-
Indole, dms ... lb.	25.50	-
Inositol, 50-kilo dms, 1000 kilos or more, f.o.b. works ... kilo	17.50	22.00
Iodine, crude, dms ... kilo	13.50	18.00
Iodine USP ... lb.	14.21	14.59
Iodochlorhydroxyquin, USP, XVI 50-kilo dms, 100-499 kilos, frt. alld ... kilo.	35.00	45.00
Iodoform, NF, dms., 300-lbs., f.o.b. works ... lb.	24.00	-
a-Ionone, dms ... lb.	18.20	-
b-Ionone, dms ... lb.	13.10	-
Ipecac root, whole, bgs ... lb.	25.00	-
Irish moss, bleached, prime, whole ... lbs.	.55	.60
Iron blue, alkali-resistant, bgs., f.c.l., ton lots, div. E ... lb.	2.70	-
Iron blue, reg., bgs., l.c.l., ton lots, same basis ... lb.	2.00	2.15
Iron, purif., powd., pails, 10-100-lb. lots ... lb.	1.00	-
Iron oxide, black, syn., bgs., c.l., frt. equald ... lb.	.68½	.76½
Iron oxide, brown, syn., bgs., c.l., frt. equald ... lb.	.68	.78½
Iron oxide, metallic brown, l.c.l., bgs., frt. equald ... lb.	.13	.15
Iron oxide, nat., red., dom., pure, bgs., c.l., works ... lb.	.275	.40
Iron oxide, yellow ... lb.	.18	-
syn., bgs., c.l., frt. equald ... lb.	.63	.71
Iron oxide, buff, nat., dom, bgs., c.l., t.l., works, light ... lb.	.75	.80
dark ... lb.	.60	-
other shades, bgs., c.l., frt equald ... lb.	.50	.55
Isatoic anhydride, bgs., f.o.b. works lb.	1.40	-
Isoamyl alcohol, 95% tanks, frt. alld ... lb.	1.44	1.48
Isoborneol, 100 lb. dms ... lb.	7.25	-
Isobornyl acetate, dms ... lb.	.80	1.15
Isobutyl acetate, solvent grade, tanks, frt. alld ... lb.	.45	.48
Isobutyl acrylate, tanks, frt. alld. E. . lb.	.71	-
Isobutyl alcohol, tanks, divd ... lb.	.29	-
Isobutylene, 99%, tanks, f.o.b. works ... lb.	.32	-
Isobutyl isobutyrate, tanks, f.o.b. works ... lb.	.42½	-
Isobutyl methacrylate, tanks, divd . lb.	.87	-
Isobutyl phenylacetate, dms ... lb.	3.10	3.50
Isobutyl salicylate, dms ... lb.	3.45	-
Isobutyraldehyde, tech., dms., c.l., divd ... lb.	.43	-
tanks, divd ... lb.	.35	-
Isobutyric acid, dms., c.l., t.l., divd . lb.	No Prices	
tanks, same basis ... lb.	.75	
Isobutyronitrile, dms., c.l., f.o.b. works frt. collect ... lb.	.84	-
tanks, same basis ... lb.	.75	-
Isoeugenol, dms ... lb.	5.20	5.60
Isoniazid, powd ... kilo	12.00	-
Isonicotinic acid, hydrazine (see Isoniazid).		
Isononyl alcohol, dms., t.l. ... lb.	.48	-
Iso-octyl alcohol, tanks, divd ... lb.	.44	-
Isophorone, tanks divd ... lb.	.81	-
Isophthalic acid, 99%, bulk, f.o.b., Joliet, Ill, min. frt. alld ... lb.	.46	-
Isophthalonitrile, bgs., t.l., works ... lb.	2.65	-
Isopropyl acetate, tanks, divd ... lb.	.47	-
Isopropyl alcohol, anhyd., 99%, tanks, divd ... gal.	1.38	-
refd., 95%, tanks, divd ... gal.	1.31	-
refd., 91%, tanks, divd ... gal.	1.25	-
Isopropyl ether, tanks, divd ... lb.	.44	-
crude, tanks, divd ... lb.	.37	-
Isopropylamine. (see Mono-, Di- or Tri-).		
Isopropyl myristate, dms., t.l., E ... lb.	1.19	1.50
Itaconic acid, refd bgs t.l. ... lb.	1.46	1.48

J

J acid, paste, dms., works, 100% basis ... kilo	4.75	-
Japan wax, cs. ... lb.	5.50	5.60
Jojoba oil, 55-gal. dms., f.o.b. Arizona producing point ... gal.	55.00	60.00
Juniper berry oil, Italian ... kilo	47.00	-

K

Kaolin, water washed, fully calcined, bags c.l., f.o.b. Georgia . ton	255.00	-
NF pwd., colloidal, bacteria controlled, 50 lb. bags., 5,000 lb. lots ... lb.	.24	-
Kaolin, uncalcined, No. 1 coating, bulk, c.l., f.o.b., Georgia ... ton	94.00	-
No. 2 coating ... ton	75.00	-
No. 3 coating ... ton	73.00	-
No. 4 coating ... ton	70.00	-
filler, gen,l purpose, same basis ... ton	58.00	-
delaminated water washed, uncalcined paint grade 1 micron avg., same basis ... ton	182.00	-
dry-grd. airfloated soft, same basis ... ton	60.00	-
Karaya gum, No. 1, powd., bbls ... lb.	2.25	-
No. 2, powd., bbls ... lb.	1.95	-
Kola nuts, bgs ... lb.	.50	.53

L

Lacquer diluent petroleum, 140F.-200F. b.r., t.c., New Jersey and New York ... gal.	1.25	-
Houston, Texas ... gal.	1.29	-
Lacquer diluent, petroleum 200F.-240F. b.r., tankcars, New York and New Jersey ... gal.	1.20	1.25
Houston, Tex ... gal.	1.12	-
Lactic acid, food grade 88%, t.c., f.o.b. works ... lb.	1.06	-
50%, t.c., frt. equald ... lb.	.82	-
tech., 88%, t.c., frt. equald ... lb.	1.03	-
Lactose, edible, reg. bgs., c.l., works ... lb.	.22	.28
Lactose, USP, reg. dms., c.l., t.l., frt. equald ... lb.	.55	.69
Lactose, USP, spray dried, bgs., t.l., frt. equald ... lb.	.60	-
Lake C, red toner. (red 53) bbls., frt. alld ... lb.	5.70	-
Lanolin, anhyd., cosmetic. 400-lb. dms., works ... lb.	1.18	1.25
pharmaceutical, 400-lb. dms. works ... lb.	1.15	-
tech., (under 2% f.f.a.), 400-lb. dms., works ... lb.	1.08	1.13
Lard (See Oils, Fats & Waxes market report)		
Lard oil, No. 1, dms., c.l., f.o.b ... lb.	.34	
tanks, same basis ... lb.	.28	
Lard oil, extra, winter-strained, dms., c.l. ... lb.	.41	-
tanks, same basis ... lb.	.33	-
prime, burning, dms., c.l., same basis, Chicago ... lb	.43	-
prime, burning, tanks, same basis ... lb.	.35	-

NOTE: 300 Ml. rad. 1½c. higher, except Texas, 2c., and West Coast, 3c. higher.

Laurel leaves, Turkish ... lb.	2.90	-
Laurent's acid, drums, f.o.b ... lb.	3.85	-
Lauric acid, coml., pure bgs., c.l. ... lb.	.65	.71
Lauric aldehyde (aldehyde C-12). dms ... lb.	7.75	-
n-Lauryl methacrylate, dms., c.l., t.l., works ... lb.	1.72	-
Lavandin oil, Abrialis, 30-32%, dms. lb.	4.00	-
Lavender flowers, ord. ... lb	.65	.75
medium, bls ... lb.	.80	.90
select. bls ... lb	1.10	1.19
Lavender flower oil, NF, French, ... 40-42%, ester, cns ... lb.	9.25	13.50
spike, Spanish, dms ... kilo	15.00	22.00
Lead acetate, purif., flake. 400-lb. dms., works ... lb	.46	-
tech., flake, t.l., 400lb. dms., works ... lb.	.37	-
Lead blue, basic, sulfate, bbls., c.l., ship,t pt., f.o.b ... lb.	.87	-
Lead carbonate. (see Lead white basic carbonate).		
Lead chloride, 400-lb. dms., works. lb	3.25	-
Lead dioxide, tech., powd., 200-lb. dms, t.l., works ... lb.	66	70
Lead fluoborate, liq. conc., dms., t.l., works, frt. equald ... lb.	.65	-
Lead metal, divd ... lb.	.18	.18½
Lead monosilicate, milled, bgs., c.l., f.o.b. works ... lb.	.58½	-
coarse, bgs., c.l., same basis ... lb.	.57½	-
Lead naphthenate liq., 24% Pb. dms., frt. alld ... lb.	.93	-
Lead nitrate tech., cryst., 400-lb. dms., t.l., works ... lb.	.32½	-
Lead peroxide (see Lead dioxide).		
Lead red, 95% Pb_3O_4, or less, bgs. c.l., works ... lb.	.37	-
Lead red, 97% Pb_3O_4, bgs. c.l., works ... lb.	.37½	-
Lead, red, 98% Pb_3O_4, bgs., c.l., same basis ... lb.	.37½	.40½
Lead silicate (see Lead, white, basic silicate).		
Lead silicochromate, bgs., c.l., works ... lb.	.35	-
Lead sulfate (see Lead, blue, basic sulfate and Lead, white, basic sulfate)		
Lead, white, basic carbonate, bgs., c.l., frt. alld ... lb	.62	-
Lead, white, basic, silicate, bgs., c.l., same basis ... lb.	.87	-
Lead, white, basic sulfate, bgs., c.l., same basis ... lb.	.85	-
Lecithin, edible, tech., bleached, non-ret. dms., l.c.l., works ... lb.	.36	-
unbleached non-ret. dms., l.c.l., same basis ... lb.	.34	-
edible, tech. bleached, non-ret., dms., t.l., works ... lb.	.28	-
unbleached, non-ret., dms., t.l., same basis ... lb.	.26	-
Lemon oil, Argentina ... kilo	14.00	-
Brazil ... lb.	6.50	7.00
Calif., USP, dms ... lb.	9.00	9.35
Italian ... lb.	12.50	-
Lemongrass oil, Indian, dms ... kilo	11.25	-
Guatemalan, dms ... lb.	2.25	-
dl-Leucine, dms., 1 kilo works ... kilo	60.00	90.00
Licorice root, whole, bls ... lb.	.40	.50
gran., bls ... lb.	.70	.90
powd., bls ... lb.	.95	-
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate).		
Lime, chemical, pebble (quicklime), bulk, 50,000 lbs., works, f.o.b. plants ... ton	39.00	45.00
Lime, chemical, hydrated, bulk, same basis ... ton	46.00	50.00
bgs., same basis ... ton	54.00	57.00
Lime, NF, purif., 100-lb. dms ... lb.	.69	-
Lime oil, dist., Mexican, dms ... lb.	6.00	-
Haitian, dist., dms ... lb.	8.00	-
expressed, dms ... lb.	17.50	-
Lime salts (see Calcium).		
d-Limonene, dms ... kilo	.70	.85
Linalool ex bois de rose oil, dms ... lb.	8.35	-
syn., 98-100% dms., f.o.b. works . lb.	2.93	-
Linalool oxide, syn., 55-gal. dm. ... lb.	7.75	-
Linalyl acetate ex bois de rose oil, 90-92%, dms ... lb.	18.00	21.00
syn. 98-100%, dms., f.o.b. works. lb.	3.10	-
Linalyl benzoate, syn., 55-gal dms. lb.	8.00	-
Linalyl cinnamate, syn., 55-gal. dms ... lb.	59.85	-
Linalyl formate, syn., 55-gal. dms ... lb.	7.75	8.50
Linalyl isobutyrate, syn., 55-gal. dms ... lb.	6.50	6.55
Lindane, 20% formulation, dms., divd ... gal	13.10	-
99.9% tech., dms., t.l., divd ... lb.	6.50	-
Linalyl propionate, syn., 55-gal. dms ... lb.	7.90	-
Linden flowers, with leaves, bls ... lb.	.78	.85
without leaves, bls ... lb.	.90	1.15
Linseed meal (see Oils, Fats & Waxes market report).		
Linseed oil, (see Oils, Fats & Waxes market report)		
Linseed oil fatty acid, dist., dms ... lb.	.60	.67
tanks ... lb.	.53	.62
Litharge, com'l., powd., bgs., c.l., works ... lb.	.36½	.60
Lithium bromide, anhyd., dms., ton lots, divd ... lb.	8.27	-
soln., same basis ... lb.	4.00	-
Lithium carbonate, powd., bgs., c.l., t.l., divd ... lb.	1.50	-
Lithium chloride, anhyd., c.l., t.l., divd ... lb.	3.32	-
soln., dms., c.l., t.l., divd ... lb.	2.94	-
Lithium fluoride, dms., c.l., t.l., divd, lb.	4.90	-
Lithium hydride, c.l., t.l., divd 10,000 or more ... lb	23.50	-
Lithium hydroxide, monohydrate, dms, c.l., t.l., divd ... lb.	1.93	-
Lithium hypochlorite, c.l., t.l., works lb	1.07	-
Lithium metal, 1,000-lb lots or more, divd ... lb	22.70	-
Lithium nitrate, tech, dms, 100-lb lots ... lb	3.25	-
Lithium stearate, bgs., c.l., frt alld . lb	1.01	-
Lithium sulfate, anhydrous, t.l. divd lb	3.09	-
Lithol red toner, barium, dms., frt. alld ... lb	3.27	-
calcium, dms., same basis . lb	3.50	-
Lithol rubine toner (red 57), resinated, dms., frt. alld ... lb	5.60	-
Locust bean gum, powd., bgs ... lb	6.00	6.75
2,4-Lutidine, dms., t.l., frt. equald kilo	5.75	-
Lycopodium, 50-lb dms ... lb.	8.00	10.00
1-Lysine monohydrochloride, food grade, 10,000 lbs divd ... lb	1.35	1.40

M

Mace, East Indian, siftings ... lb	4.95	5.00
Siauw #2 ... lb.	5.60	5.75
Magnesia, tech, light, neoprene-grade, bgs., c.l., t.l., works lb.	.75	.81
Magnesia, syn., tech, chemical-grade, bulk, c.l., t.l. works ... ton	330.00	-
bags, c.l., t.l., same basis ... ton	365.00	-
deadburned, bulk, same basis ... ton	392.00	-
bgs., same basis ... ton	409.00	-
Magnesia, nat., tech., heavy, 85%, 150 mesh, bulk, c.l., t.l., f.o.b Nev. ... ton	232.00	-
90%, 325 mesh, same basis. ton	265.00	-
Magnesium bromide, 80-lb. dms., hexahydrate ... lb	2.50	-
Magnesium carbonate, light, tech., bgs, c.l., t.l., works, frt equald ... lb	.73	.78
USP, lite bgs., c.l., same basis . lb.	.74	.80
USP, heavy, bgs., c.l., same basis . lb.	.83	-
Magnesium chloride, anhyd., 92%, flake or pebble dms, c.l., works ... lb	12½	.15
Magnesium chloride, hydrous, 99%, flake, bgs, c.l., works . lb	.14½	-
Magnesium gluconate, 100-lb dms, f.o.b. works, E ... lb	4.25	-
Magnesium hydroxide, NF, powd., dms, c.l., t.l., works frt equald ... lb.	.78	-
Magnesium lauryl sulfate, tanks, f.o.b works ... lb	22	.28½
Magnesium metal, 99.8%, ingots, 10,000-lb. lots or more f.o.b. Freeport, Tex ... lb	1.53	-
die casting alloys ... lb	1.29	1.33
Magnesium nitrate, tech., flake, 250-lb dms, t.l., works ... lb	32	-
Magnesium oxide, USP, light, bgs, c.l., works, frt equald ... lb	1.65	-
heavy, dms, c.l., same basis . lb	1.54	-
Magnesium oxide, tech. (see Magnesia).		
Magnesium phosphate, tribasic, tech. 60-lb. bgs, f.o.b ... lb	1.00	-
Magnesium silicate (see Talc)		
Magnesium silicofluoride, bgs., c.l., t.l. works ... lb.	.1645	.1800
Magnesium stearate, bulk, t.l. ... lb.	.95	1.38
Magnesium sulfate 10% Mg. (epsom salts), tech. bgs., t.l., works ... lb.	14	-
bulk, same basis ... lb.	.13	-
USP, cryst., bgs., same basis . lb.	.13½	-
USP, cryst., bulk, same basis . lb.	14½	-
Magnesium sulfate, 17% Mg. (synthetic monohydrate), tech. bgs. t.l., works ... lbs.	.80	-
CP, same basis ... lbs.	1.25	-
Magnesium sulfate, anhydrous, CP bgs., t.l., works ... lbs	1.75	-
Magnesium sulfate trihydrate, tech., bgs., t.l., works ... lb.	.45	-
Magnesium trisilicate, USP, powd., fib. dms. 5,000-lb. lots ... lb.	.38	-
USP, micronized powd., dms., 375-lb. lots ... lb.	.83	-
Malathion, tech., dms., t.l., works . lb.	1.62	-
Maleic acid, cryst., powd., drums, 100 kilos, f.o.b. ... kilos	3.20	-
drums, tons, f.o.b. ... kilos	2.80	-
Maleic anhydride, bgs., t.l., works, frt. equald ... lb.	.56	.59
tanks, works, frt. equald ... lb.	.53	-
Malic acid, purif. and food grades. 50-lb. bgs., t.l., c.l., divd ... lb.	.81	.84
Mandarin oil (see Tangerine oil, Italian).		
Mandelic acid, dms., 1,000 kilo lots ... kilo	8.00	10.00
Manganese acetate, dihydrate, dms., divd ... lb.	.43½	.48
tetrahydrate, dms., t.l., divd ... lb.	.48	-
Manganese borate printing ink drier. lb.	1.68	1.80
Manganese borate, tech., dms ... lb.	.80	.99
Manganese carbonate, chemical grade, 46% Mn. bgs., 20,000-lb. lots or more, works ... lb.	1.05	-
Manganese chloride, anhyd., dms., 20,000-lb. lots or more ... lb.	.61	-
Manganese dioxide, nat., African, grd., 74%-76% MnO_2, 100-lb. bgs., t.l., works ... ton	200.00	-
84% MnO_2, same basis ... ton	250.00	380.00
Manganese dioxide, syn., cryst., battery grade, 90%-92% MnO_2, 100-lb. bgs., c.l., works ... lb.	.70	.87½
chemical, ferrite grade, same basis ... lb.	.49	.61
Manganese gluconate, FCC grade, 100-lb dms., f.o.b. works . lb.	3.60	
Manganese hydrate dms., divd ... lb.	.35	.38
Manganese hypophosphite, NF, dms. ... lb.	8.75	-
Manganese metal, electrolytic, No. 1 chip, bulk, c.l., works ... lb.	.83¼	-
dms., c.l., works ... lb.	.8435	-
Manganese naphthenate, liq., 6% Mn, dms., divd ... lb.	.67	-
Manganese resinate, fused, 3½% Mn dms., frt. alld ... lb	.34½	
precip. 6½-7% Mn. dms ... lb	.12	-
Manganese sulfate, fertilizer grade, run-of-pile, 75%-78% $MnSO_4$, 25 kilo bgs., 50-ton cars, divd E. of Miss. ... ton	200.00	-
bulk, hopper cars, same basis ... ton	245.00	-
Manganese sulfate, 28% Mn, gran. bgs., c.l., t.l., works ... ton	330.00	-
Manganese tallate, liq., 6% Mn, dms, frt alld ... lb	.60	-
Mannitol, coml., powd., dms., t.l., works ... lb	3.02	-
Marjoram, French ... lb	.86	.89
Egyptian ... lb	.61	.82
MBT (see 2-Mercaptobenzothiazole).		
MBTS (see Mercaptobenzothiazyl disulfide)		
MDI (see Diphenylmethane 4,4'-di-isocyanate)		
Melamine, bgs., c.l., t.l. 40,000-lb min., f.o.b. works ... lb	.51½	.59½
bulk, c.l., t.l., same basis ... lb	.50	.58
Melamine-formaldehyde resin, g.p. t.l. frt. alld ... lb	.55	.60
molding compounds, same basis ... lb	.46½	-
Menhaden oil, crude, tanks, works Atlantic Coast ... lb.	.11	-
Gulf ports, same basis ... lb	.12	-
Menthol, nat., USP, Brazilian large and regular crystals, spot, cs., bulk ... lb.	6.75	7.50
syn., USP, racemic, 100-450 lbs. lb.	9.00	-
Mercaptobenzothiazole, bgs., t.l., works, frt. alld ... lb.	1.25	1.55
Mercaptobenzothiazyl disulfide t.l., dms., works, frt. alld ... lb	1.33	1.66
Mercuric chloride NF, gran., powd., 100-lb. dms., f.o.b works ... lb.	6.50	-
Mercuric oxide, red, purif., 100-lb. dms, f.o.b. works ... lb.	7.00	7.25
tech., 100-lb. dms., same basis ... lb.	5.50	7.00
yellow, NF, 100-lb. dms., same basis ... lb.	7.00	7.25
tech., 100-lb. dms., same basis ... lb.	5.50	7.50
Mercurous chloride (see Calomel).		
Mercury, ammoniated (see White precipitate USP XV)		
Mesityl oxide, tanks, divd ... lb.	.46	-
Methacrylic acid, glacial, 99%, dms., t.l., frt. equald ... lb	.87	-
tanks, works, frt. equald ... lb.	.78	-
Methamphetamine hydrochloride, dms ... lb.	12.00	16.00
Methamphetamine hydrochloride. dms ... lb	4.50	7.00
Methanol, syn., tanks, 4,000 gals., f.o.b. producing point, Gulf Coast ... gal.	52	.71½
Methenamine (see Hexamethylenetetramine)		
Methionine hydroxyanalogue, dry, 88% activity t.l., frt. alld ... lb.	.86	-
liquid, 88% activity, t.l. frt. alld ... lb.	88	-
Methionine (see Racemethionine)		
Methoxychlor, 50% wettable powder, dealers, dms ... lb.	2.05	-
Methyl abietate, non-ret. dms., c.l., divd E ... lb.	9.40	-
Methyl abietate, hydrogenated, non-ret. dms., l.c.l., same basis ... lb.	10.00	-
Methyl acetoacetate, East, divd bulk ... lb.	.85	-
Methyl acrylate, tanks, divd ... lb.	68.50	-
Methyl alcohol (see Methanol)		
Methyl amyl alcohol, tanks, divd ... lb.	.55	-
Methyl n-amyl ketone, tks., divd ... lb.	.54½	-
Methyl anthranilate, tech., dms., f.o.b ... lb.	1.41	2.65
Methyl benzoate, dms., t.l. ... lb.	.25	-
99%, perf. grade, dms., t.l. ... lb.	1.65	-
Methyl bromide, dist., tanks, 140,000 lbs. min., frt. alld ... lb.	.58¾	-
Methylcellulose, premium, USP (visc. 400 through 4,000 cps) 50 lb. bags, tl., cl., 30,000 lb., min., divd., zone 1 ... lb.	2.73	-
Methylcellulose, premium USP (visc. 15 cps) 50 lb. bags, tl., cl., 30,000 lbs., divd., zone 1 . lb.	2.85	-
Methylcellulose, (visc. 400 through 4,000 cps) 50 lb. bgs., tl., cl., 30,000 lbs., divd., zone 1 . lb.	2.24	-
Methylcellulose (visc. 15 to 25 cps) 50 lb. bags, tl., cl., 30,000 lb. min., divd., zone 1 ... lb.	2.52	-
Methyl chloride, indust. bulk, tanks, f.o.b. works ... lb.	.26	-
Methyl chloroform (see 1,1,1-Trichloroethane).		
Methyl cinnamate, dms ... lb.	4.85	-
Methyl p-cresol, dms ... lb.	6.00	-
Methyl ethyl ketone, tanks, divd, E. . lb.	.235	-
Methyl eugenol, 25-lb. cns ... lb.	3.55	3.80
Methyl formate, pure, non-ret. dms., works ... lb.	.41	-
tanks, same basis ... lb.	.29	-
tech., tanks, works ... lb.	.31	-
Methyl heptenol, syn., 55-gal. dms. lb.	14.50	-
Methyl heptenone, pure, dms ... lb.	7.30	-
Methyl heptin carbonate, dms ... lb.	45.00	-
Methyl p-hydroxybenzoate (see Methylparaben)		
Methyl ionone, std., dms ... lb.	7.30	9.40
Methyl isoamyl ketone, tanks, divd. E ... lb.	.61	-
Methyl isobutyl carbinol (see Methyl amyl alcohol).		
Methyl isobutyl ketone, tanks, divd. lb.	.35	-
divd. zone 2 (Calif.) ... lb.	.38	-
divd. zone 3 (W. of Rockies, excluding Calif.) ... lb.	.41	-
Methyl isoeugenol, 25-lb. cns ... lb.	6.60	10.40
Methyl methacrylate, tanks, divd ... lb.	.62	-
Methyl naphthyl ketone, cryst., dms ... lb.	14.00	-
Methylparaben, USP, 500 kilograms, f.o.b. ... kilo	10.14	-
tech., 500 kilograms, f.o.b. ... kilo	9.70	-
Methyl parathion, tech., 80%, dms., frt. alld. E ... lb.	1.65	-
Methyl phenylacetate, dms ... lb.	3.60	5.40
N-Methyl 2-pyrrolidone, tanks, f.o.b. plant ... lb.	1.32	-
dms., c.l., t.l., same basis ... lb.	1.40	-
Methyl rosaniline chloride, USP, 1-lb. cans ... lb.	5.50	-
Methyl salicylate, NF, 1000-lb. dms., t.l., frt. alld ... lb.	1.79	1.94
Methyl violet (see Methyl rosaniline chloride).		
Methyl violet toner, molybdated, PMA, bbls., divd, E. of Rockies ... lb.	3.25	-
Methyl violet toner, tungstated, PTA, bbls., same basis ... lb	4.70	5.20
4,4'-Methylene dianiline (p,p-di-aminodiphenyl methane) crude, dms., t.l., f.o.b. ... lb.	1.75	-
purif., flake, same basis ... lb.	2.25	-
Methylene di-p-phenylene di-isocyanate (see diphenylmethane 4,4'-di-isocyanate).		
Methylene chloride, tanks, 4,000 gal.-min., consumers, divd ... lb.	.35	-
Methylpentanodiol (see Hexylene glycol).		
Methylphenylpyrazolone (see 1-Phenyl-3-methyl-pyrazolone-5).		
a-Methylstyrene, f.o.b. shipping pt. . lb.	.44	-
p-Methylnaphthalene, bulk, works gal.	1.38	-
Methylthionine chloride (see Methylene blue).		
Mica, dry-grd., joint cement, plastic, 50 lb., bgs., c.l., works ... lb.	.07½	-
dry-grd., roofing, 20 to 80 mesh. works ... lb.	.07	-
paint or lacq., wet-grd., 325-mesh, bgs., c.l., f.o.b. works ... lb.	.16¾	-
rubber, bgs., c.l., f.o.b. works ... lb.	.16¾	-
wallpaper, bgs., c.l., f.o.b. works. lb.	.22	-
Microcrystalline wax, petroleum, coating grades, FDA, tanks, works ... lb.	.38½	.46½
laminating grades, FDA, tanks, works ... lb.	.38½	.48
Mineral oil, white, 50-65 vis., USP light tanks, refy ... gal.	2.38	-
65-75 vis., tanks, refy ... gal.	2.42	-
80-90 vis., tanks, refy ... gal.	2.45	-
145-155 vis., tanks, refy ... gal.	2.53	-
USP 180-190 vis., tanks, refy ... gal.	2.54	-
200-210 vis., tanks, refy ... gal.	2.56	-
340-350 vis., tanks, refy ... gal.	2.65	-
Mineral spirits, petroleum, odorless, tanks, New Jersey ... gal.	1.83	1.88
Houston, Tex ... gal.	1.78	1.79
Mineral spirits, petroleum, regular, tanks, New Jersey ... gal.	1.41	1.49
Houston, Tex ... gal.	1.41	1.43
Molybdate orange, bbls ... lb.	1.52	1.96
Molybdenum metal, com'l., powd., 99.8%, dms., works ... lb.	13.50	-
Molybdenum trioxide, CP, dms., works, 24,000 lbs. or more. lb.	5.25	-
tech., chemical, dms., 24,000 lbs. or more, basis ... lb.	2.65	2.85
tech. metallurgical, dms. same basis. lb.	2.65	2.85
Molybdic acid (See Ammonium Dimolybdate)		
Monoammonium phosphate, fert. grade, min. 13% N. 52% P. bulk, c.l., f.o.b. Fla works ... ton	155.00	-
Monoammonium phosphate, tech., bgs., c.l., t.l., works, frt. equald ... 100 lbs.	54.00	-
food grade, bgs., c.l., t.l., same basis ... 100 lbs.	59.25	-
Mono-tert-butyl-m-cresol, bulk, t.l. . lb.	1.69	-
Monobutylamine, bulk, divd ... lb	.96	1.00
Monochloroacetic acid, purif. (see Chloroacetic acid, mono).		
Monochlorobenzene, tanks, f.o.b. . lb.	.42½	-
Monoethanolamine, tanks, frt. alld E ... lb.	.43	.46
Monoethylamine, 70% aqueous tanks, frt. prepaid, 100% basis ... lb.	.94	-
anhyd., tanks, same basis ... lb.	.92	-
Monoisopropanolamine, dms., c.l., frt. alld. E ... lb.	.76	-
tanks, same basis ... lb.	.66	-
Monoisopropylamine, anhyd., dms., c.l., frt. prepaid ... lb.	.79	-
tanks, same basis ... lb.	.76	-
Monomethylamine, anhyd., tanks, contained basis frt. equald ... lb.	.54½	-
25% soln., tanks, frt. alld. 100% basis ... lb.	.57	-
40-60% soln., tanks, frt. equald. 100% basis ... lb.	.63½	-
Monopotassium glutamate, dms., 990 lb. or more, frt. alld ... lb.	2.50	-
Monosodium glutamate, 50-lb. bgs. c.l., t.l., divd ... lb.	.76	.80
100-lb. drums, c.l., t.l., divd ... lb.	.85	-
Monosodium phosphate (see Sodiumphosphate, monobasic).		
Montan wax, crude, imp., German . lb.	.55	.57
dom., Calif., bgs., c.l., t.l., f.o.b. shipt. pt ... lb.	.61	-
refd., dom. Calif., same basis ... lb.		
Morphine alkaloid, NF, 25 k lots . kilo	1018.00	-
Morphine sulfate, USP, 25 k lots . kilo	850.00	-
Morpholine, dms., c.l., frt. alld. E. . lb.	1.02	-
tanks, frt. alld., E ... lb.	.94	-
Muriatic acid (see Hydrochloric acid).		
Musk, syn., ambrette, 25-lb. cns. . lb.	6.00	7.00
Musk, syn., ketone, dms ... lb.	10.75	-
Musk, syn., xylol, dms ... lb.	3.60	-
Mustard oil, syn. (see Allyl isothiocyanate).		
Mustard seed, Brown No. 1 ... lb.	.24	-
Canadian No. 1 Yellow ... lb.	.25	-
Oriental No. 1 bgs ... lb.	.25	-
Myrcia oil (see Bay oil).		
Myristic acid, coml., pure, t.l., bgs. . lb.	1.30	-
tanks ... lb.	1.12	-
Myristica oil (see Nutmeg oil).		
Myrrh gum, bgs ... lb.	2.25	-

N

Naphtha, high solvency (see Solvent naphtha, petroleum).		
Naphtha, petroleum, cleaners (see Cleaner's naphtha).		
Naphtha, VM&P, petroleum, tanks, New Jersey and New York ... gal.	1.29	1.34
Houston, Tex ... gal.	1.20	-
Naphthalene, crude, dom., 78°, tanks, works ... lb.	.22	-
Naphthalene, phthalic anhydride grade, tanks, works ... lb.	.23½	-
Naphthalene, petroleum, 80°C., f.o.b ... lb.	.30	.32½
Naphthalene, refd., balls, flakes, whole salers, jobbers, dms., works ... lb.	.66	.77
Naphthenic acid, crude, bulk, works lb.	.16	.32
refined, 220 acid, same basis ... lb.	.76	1.00
a-Naphthol, ground, dms., t.l., divd. . lb.	1.81	-
b-Naphthol, tech., flake, 80-lb. bgs., c.l. works ... lb.	1.10	-
Naphthol arylide red toner deep shades, bbls ... lb.	9.50	-
light shades, bbls ... lb.	7.75	-
2-Naphthol-3,6-disulfonic acid, disodium salt (see R salt).		
1-Naphthol-5-sulfonic acid (see L- acid)		
1-Naphthol-5-sulfonic 8-amino acid (see S acid).		
Naphthylamine sulfonic mixed acid (see Cleve's acid).		
a-Naphthylamine, tanks, f.o.b. works ... lb.	2.10	-
1-Naphthylamine-5-sulfonic acid (see Laurent's acid).		
2-Naphthylamine-4,8 disulfonic acid (see Cassella acid).		
2-Naphthylamine-1-sulfonic acid (see Tobias acid).		
Neatsfoot oil, 20°F, t.l., f.o.b. works dms ... lb.	.52	-
tanks, f.o.b. works ... lb.	.47	-
30°F, t.l., f.o.b. works ... lb.	.52	-
tanks, f.o.b. works ... lb.	.44	-
40°F, dms., t.l., f.o.b. works ... lb.	.48	.49
tanks, f.o.b. works ... lb.	.39	-

Delivered prices apply on shipments within 300-mile radius of Philadelphia, Pa.; other areas, 1¼c. higher; Texas, 2c. higher and West Coast 3c. higher.

Neomycin sulfate, USP, non-sterile, dms., 50-kilo. lots, activity basis, divd ... kilo.	75.00	-
Neopentyl glycol, slurry, 90%, c.l., t.l., divd ... lb.	.522	-
powder, flake, bgs. t.l., divd. . lb.	.598	
Nerol, tech, dms ... lb.	5.30	5.75
perf. grade, dms ... lb.	4.60	5.00
Neroli oil, Tunisian, bots ... kilo	18,000.00	-
Nerolidol syn. 55-gal. dms ... lb.	7.05	-
Nerolin, Bromelin ... kilo	7.22	-
Niacinamide, USP, t.l. dms ... kilo.	8.00	-
Niacin NF, dms., 5,000 kilos or more, divd ... kilo	7.50	-
feed-grade, 98-99.5%, bgs., same basis ... kilo.	5.10	5.60
Nickel acetate, dms., 5,000-lbs. to t.l., divd. E ... lb.	1.82	-
Nickel carbonate, dms., bgs., 5,000-lbs. to t.l., divd. E ... lb.	3.45	-
Nickel chloride, bgs., 10,000-lbs. to t.l., divd. E ... lb.	1.19	-
Nickel fluoborate, liq. conc., dms., t.l., divd. E ... lb.	1.25	-
Nickel metal, electro cathodes, cs., works ... lb.	3.45	-
Nickel nitrate, dms., bgs., t.l., divd. E ... lb.	1.18	-
Nickel oxide, 75%-78% Ni, dms., 500-lb. lots, f.o.b. works ... lb.	2.80	-
Nickel sulfate, bgs., t.l., divd. E ... lb.	.80	.90
Nicotinic acid (see Niacin).		
Nicotinamide (see Niacinamide).		
Nitric acid, 36° Be., 38°Be, 40°Be, 42°Be. tanks, c.l., works NF, 100% basis ... ton	195.00	-
94½% to 98% HNO_3, tanks, works, 100% basis ... ton	280.00	-
o-Nitroaniline, flake, dms., t.l. works ... lb.	1.51	-
molten, refd., tanks, works ... lb.	1.44	-
molten, tech., works ... lb.	1.37	-
o-Nitroaniline, orange toner, bgs., frt. alld ... lb.	1.90	-
p-Nitroaniline, dms., c.l., t.l., 30,000 lb. min., works ... lb.	1.63	-
o-Nitroanisole, 100-kilo lots ... kilo	8.75	-
Nitrobenzene, tanks, f.o.b ... lb.	.33	.34
o-Nitrochlorobenzene, dms., t.l., c.l., f.o.b ... lb.	.82	-
tanks, same basis ... lb.	.74	-
2-Nitro-p-cresol, tech., dms., t.l., frt. alld ... lb	1.75	-
Nitroethane, tanks, divd. E ... lb.	2.50	-
Nitrogen solutions, direct application, over 32% N, and mgf. type, works ... unit-ton.	1.20	-
direct application, 19-32% N ... unit-ton	1.26	1.46
Nitrogenous sewage sludge, processed, bulk, f.o.b. Chicago ... unit ton.	4.10	-

NOTE: Price is per unit NH_3 plus $1. per unit a.p.a. bulk, f.o.b. producer,s works, Chicago.

Nitrogenous tankage, processed, bulk, per unit-ton NH_3, f.o.b. Carrollville, Wisc ... unit ton	7.00	-
f.o.b. Forbes, Mo. ... unit ton	6.75	-
expended, bulk, c.l., per unit-ton N, f.o.b. Forrestdale, R.I. unit ton	8.35	-
Nitromethane, dms., t.l., divd. E ... lb.	2.37	-
o-Nitrophenol, dms., f.o.b. works ... lb.	1.00	-
p-Nitrophenol, dms., c.l., f.o.b. works ... lb.	1.05	1.45
2-Nitropropane, tanks, frt. alld. E ... lb.	.55	-
m-Nitrotoluene, tech., dms., frt. alld. lb.	1.15	-
o-Nitrotoluene, dms., c.l., f.o.b ... lb.	.65	-
tanks, same basis ... lb.	.48	.57
p-Nitrotoluene, tech. dms., c.l., works ... lb.	.83	.85
tanks, works ... lb.	.70	-
Nonylphenol, tanks, f.o.b. E. of Rockies, min. frt. alld ... lb.	.49	.53½
Norephedrine hydrochloride (see Phenylpropanolamine hydrochloride)		
Nutmeg oil, dist., East Indian, NF, dms ... kilo	27.00	28.50
Nutmegs, East Indian, whole ... lb.	3.10	-

O

Ochre (see Iron oxide, yellow, nat.)		
Ocotea cymbarum oil dms ... kilo	6.00	-
Ocotea, Chinese 90% ... kilo	5.25	-
1-Octadecanol, syn., tanks, f.o.b ... lb.	.43½	-
1-Octanol, syn., tanks, f.o.b ... lb.	.70	-
n-Octane, 97% min., tanks, f.o.b. Houston, Tex ... gal.	8.25	-
Octyl alcohol, perfumer's grade, bots., cns ... lb.	1.40	1.75
n-Octyl, n-decyl phthalate, tanks, divd ... lb.	.33½	.37
tert-Octylamine, dms., c.l., t.l., works.	2.60	-
Octylphenol, molten, t.c., works ... lb.	.78	.78½
Oiticica oil, liq. dms ... lb.	.40	-
tanks ... lb.	.32	-
Oleic acid, dbl.-dist. (white), dms. . lb.	.46	.59
tanks ... lb.	.38	.44
Oleic acid, s.d. (red) dms ... lb.	.43	.49
tanks ... lb.	.36	.41
Oleum (see Sulfuric acid, fuming).		
Olibanum gum, tears, bgs ... lb.	2.10	-
Olive oil, edible, Spanish, dms ... gal.	8.00	-
Italian B-type ... gal.	5.35	-
Olivine, crude, works ... ton	12.00	-
20 mesh, works ... ton	15.00	-
100 mesh, works ... ton	20.00	-
Opium, USP, gran. powd. 25-kilo lots ... kilo	125.00	-
Orange oil, expressed, USP, Calif., dms., f.o.b. plant ... lb.	1.20	-
expressed Valencia, dms ... lb.	1.00	1.20
Calif., dist., cns. f.o.b. plant ... lb.	.40	-
Florida, dms ... lb.	.50	.55
Brazilian ... kilo	1.20	-
West Indian, bitter, NF X, cns., dms ... lb.	6.50	-
Orange peel, bitter, Haitian bls ... lb.	.38	-
Oregano, Greece, 30M ... lb.	2.80	-
Turkey ... lb.	2.80	-
Mexico ... lb.	1.05	-
Origanum oil, Spanish, cns ... kilo	35.00	-
Orris root, Florentine, bls ... lb.	4.00	-
powd., bbls., bxs ... lb.	4.60	5.00
Verona bls ... lb.	3.00	-
powd., bbls., bxs ... lb.	4.60	5.00
Ouricury wax, refd., pure, bgs ... lb.	3.25	3.35
Oxalic acid, bgs., c.l., works ... lb.	.44	-
b-Oxynaphthoic acid dms. works, tech ... lb.	2.55	-
Oxyquinoline base, pure, 1,000 lbs., frt. alld ... lb.	8.00	-
Oxyquinoline sulfate, 100 lbs. frt. alld ... lb.	4.00	-

P

Palladium metal, works ... Troy-oz.	140.00	-
Palm oil, (see Oils, Fats & Waxes Market Report)		
Palm oil acid, dbl-dist. dms ... lb	.31½	-
tanks ... lb.	.30	-
s.d., dms ... lb.	.42	.45
tanks ... lb.	.35	-
Palm kernel oil, bulk, c.i.f. U.S ports ... lb.	.10	.10½
Palmarosa oil, Indian dms ... kilo	36.00	-
Palmitic acid, 90%, tech., bags ... lb.	.53	-
tanks ... lb.	.51	-
Papaverine hydrochloride, NF powd., imp. bulk ... kilo	56.00	-
Paprika, Hungarian, 100 AU bgs. . lb	.80	-
Spanish, 110 AU bgs ... lb.	.90	-
Paraffin, fully-refd., 127-130 F., ASTM, tanks, refy ...	.29	.35
130-135 F., ASTM, tanks, refy.	.33½	.39
140-145 F., ASTM, tanks, refy.	.35	.41½
150-155 F., ASTM, tanks, refy.	.41½	.46
slack wax, 5% oil, tanks refy ...	.19	-
12% oil, tanks refy ...	.21	-
20% oil, tanks refy ...	.18	-

AMP temperatures are an arbitrary 3F higher than ASTP.

Paraformaldehyde, 91%, flake, bgs. c.l., t.l., divd ... lb.	.29½	-
95%, powd., bgs., c.l., t.l. divd. lb.	.39½	-
Paraldehyde, tech., 98%, 55-gal. dms., t.l., divd. E ... lb.	.76½	-
tanks, divd. E ... lb.	.58½	-
Parathion, ethyl, dms., frt. alld ... lb.	1.75	-
Parathion methyl (see Methyl parathion).		
Para toner red, bbls ... lb.	3.75	-
chlorinated, (red 4) kgs ... lb.	3.75	-
Patchouli oil, Indonesian., dms ... kilo	20.00	22.00
Patchouli oil, Chinese ... kilo	19.00	20.00
Peach kernel oil, USP (see Apricot kernel oil).		
Peanut meal (see Oils, Fats & Waxes market report).		
Peanut oil (see Oils, Fats & Waxes market report).		
Pectin dom., NF, citrus, powd., 100-kilo lots divd ... lb.	3.30	3.70
Pelargonic acid, nat., tanks, min. frt. alld ... lb.	.70	-
syn., tanks, f.o.b. frt. alld ... lb.	.70	-
Penicillin, potassium, non-sterile, 200-billion-unit lots ... billion units	25.00	30.00
Penicillin, procaine, sterile 50-billion-unit lots, bulk ... billion units.	36.00	-
Pennyroyal oil, dms ... lb.	5.90	-
Pentachlorophenol, 50-lb. bgs., t.l., f.o.b. Wichita, Kan ... lb.	.55	-
Pentaerythritol, tech., bgs., c.l., f.o.b., frt. alld ... lb.	.71	.72
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).		
Pentaerythritol triacrylate, t.l. dms., f.o.b. works ... lb.	1.50	-
Pentobarbital, dms., 100 lbs. or more, frt. alld ... lb.	7.00	-
Pentobarbital-sodium, dms., 100 lbs. or more, divd ... lb.	14.00	-
Pentylene tetrazol, NF, dms., 200-kilo lots ... kilo	32.00	-
Pepper, black, Brazilian, bgs ... lb.	2.00	-
Lampong, bgs ... lb.	2.03	-
Malabar, bgs ... lb.	2.00	-
Tellicherry, bgs ... lb.	2.30	-
Pepper, red Chinese Fukien rice bgs lb.	.89	-
Haimen, bgs ... lb.	1.00	-
Liing, bgs ... lb.	.76	-
Indian, S-4, bgs ... lb.	.70	-
Pakistan, dundicuts, bgs ... lb.	.43	-
Pepper, white, Muntok, bgs ... lb.	2.80	-
Peppermint leaves, imp., dms ... lb.	2.65	-
Peppermint oil, Madras ... lb.	14.00	-
Midwest ... lb.	15.00	-
Willamette ... lb.	11.00	-
Yakima ... lb.	8.00	-
syn., dms, f.o.b. works ... lb.	7.00	9.00
Brazilian ... kilo	6.50	-
Chinese ... kilo	6.90	-

CHEMICAL PRICES

WEEK ENDING SEPT 26, 1986

Perchloroethylene, dry cleaning grade, distr., tanks, divd. lb.	.28½	-
Indust. grade, consumers, tanks, divd lb.	.31	-
Perlacid. dms. lb.	2.55	-
Permanent red 2B, (red 48), calcium salts, dms., frt. alld lb.	5.25	-
barium salts, same basis lb.	5.25	-
Peru balsam, f.o.b. lb.	3.25	-
Petitgrain oil, Paraguay lb.	5.75	6.25
Petrolatum, USP, snow white, dms., c.l., refy lb.	.375	-
tanks, refy lb.	.310	-
USP, soft white, dms., c.l., refy. lb.	.375	-
tanks, refy lb.	.310	-
USP, lily white, dms., c.l., refy. lb.	.370	-
Petrolatum, USP, Lilly white, tanks, refy lb.	.305	-
USP, cream, dms., c.l., refy lb.	.365	-
tanks, refy lb.	.30	-
USP, soft yellow, dms., c.l., refy. lb.	.350	-
tanks, refy lb.	.285	-
USP, amber, dms., c.l., refy lb.	.345	-
tanks, refy lb.	.280	-
Petroleum pitch (see Asphalt, petroleum).		
Petroleum sulfonate, 60-62%, sulfonic cont., HMW, bulk, works lb.	.48¾	.49
MMW, same basis lb.	.49	-
LMW, same basis lb.	.49	.49¾
Prices for 51% sulfonic content 2c per lb. lower on corresponding molecular wts.		
Phenacetin USP, powd., 200-lb. dms., 1,000-lb. lots, divd lb.	2.20	-
100-lb. dms., 1,000-lb. lots, divd. lb.	2.22	2.45
p-Phenetidine, dms., c.l., f.o.b. lb.	2.00	-
Phenobarbital, USP, dms., 500-kilo lots., f.o.b. works kilo	19.50	-
Phenobarbital-sodium, NF, 500-kilo lots, f.o.b. works kilo	27.00	-
Phenol, syn. tanks, frt. equald. lb.	.25	.29
p-Phenolsulfonic acid, 65% sol'n., dms., c.l., fob works lb.	.64	-
tanks, same basis lb.	.58	-
Phenothiazine, indust. grade, 50-lb. bags, c.l., f.o.b. works lb.	2.33	-
purif. grade, same basis lb.	2.89	-
Phenyl acetate, dms., 100-lb. lots, works lb.	1.04	-
Phenylacetic acid, pure cryst., 25-lb. cns. lb.	4.50	-
dl-Phenylalanine, dms., 25-kilo lots kilo.	84.00	-
1-Phenyl-3-carbethoxy pyrazolone-5, dms. 200-lb. lots, divd. E. lb.	3.45	-
m-Phenylenediamine, cast. dms., c.l., t.l., f.o.b works lb.	2.07	-
o-Phenylenediamine, flaked, dms., t.l., f.o.b. works lb.	3.25	-
p-Phenylenediamine, flaked, dms., f.o.b. works lb.	4.00	-
Phenylephrine hydrochloride, USP 100-kilo lots or more kilo.	175.00	185.00
Phenylethyl acetate, dms. lb.	3.35	-
2-Phenylethyl alcohol, NF, dms. lb.	2.10	2.20
b-Phenylethylamine, dms., 30,000 lbs. or more, frt alld lb.	1.50	-
Phenylethylphenyl acetate. 25-lb. cns. lb.	5.60	6.90
Phenylglyconic acid (see Mandelic acid).		
Phenylhydrazine, 99% min., dms. lb.	3.50	-
1-Phenyl-3-methyl-5-pyrazolone, dms., 250-lb. lots divd. E lb.	1.80	-
o-Phenylphenol, dms., t.l., works lb.	1.35	2.00
p-Phenylphenol, bgs., t.l., 40,000 lbs. or more, works lb.	1.85	-
Phenylpropanolamine hydrochloride, 100-kilo dm kilo	24.00	28.00
Phenylsalicylate, purif. cryst., dms., E lb.	2.75	-
tech., cryst., E. lb.	2.25	-
flake, E. lb.	2.35	-
Phloxine toner (red 90), dms., frt. alld. lb.	1.95	2.05
Phosgene, 1-ton ret. cyls., 5 to 9-cyl. quantities, works lb.	.55	.67
Phosphate rock, Fla., land pebble, run of mine washed, 66-68% b.p.l. bulk c.l. mines ton	23.15	-
vessel, Tampa, same basis ton	28.00	-
Phosphoric acid, com'l. and tech. grades, 75% tanks, works 100 lbs.	29.00	-
80% tanks, works 100 lbs.	31.00	-
85%, N.F. tanks, f.o.b. freight equald 100 lbs.	33.50	-
Food grade prices $2.00 above tech. grade.		
Phosphoric acid, agricultural grade, 52-54% a.p.a., tanks, works unit-ton	3.10	-
super, min. 70% a.p.a., same basis unit-ton.	3.45	-
Phosphorus, white (yellow) solid dms., c.l. works, frt. equald lb.	1.00	-
tanks, works, f.o.b. works. lb.	.91	-
Phosphorus oxychloride, tanks, frt. equald lb.	.40	-
Phosphorus pentasulfide, powd., dms., c.l., works 100 lbs.	50.00	-
tote bins, sellers 100 lbs.	45.00	-
Phosphorus pentoxide, dms., t.l., works lb.	.82	-
Phosphorus sesquisulfide, dms., cvs., c.l., works lb.	.38	-
Phosphorus trichloride, dms., c.l., works lb.	.40	-
tanks, works lb.	.35	-
Phthalic anhydride, flake, c.l., t.l., dms., frt. equald lb.	.30	-
molten, tanks, same basis lb.	.27	-
Prices 1-1½c. per lb. higher on the West Coast		
Phthalimide, flake, works lb.	.85	-
Phthalocyanine blue toner, red shade, bbls., frt. alld. E. of Rockies lb.	8.10	9.50
green shade, same basis lb.	6.40	8.50
resinated, bbls., same basis lb.	6.20	8.75

Phthalocyanine blue toner, water dispersable, bbls., same basis lb.	7.05	7.75
Phthalocyanine green toner, all grades, bbls., frt. alld. E. of Rockies lb.	8.10	10.10
Phthalocyanine green toner, resinated, bbls., same basis lb.	7.45	9.20
Phthalylsulfacetamide, dms., 500-kilo lots kilo.	6.61	-
Picolines, refd, mixed, bulk kilo	2.81	-
Picric acid, pure paste, 25-lb. cins., c.l., dry basis, f.o.b. Charlotte, N.C. lb.	6.00	-
tech., paste, 25-lb. cins., t.l., dry basis, f.o.b. Charlotte, N.C. lb.	5.00	-
Pigment green B, kgs lb.	2.20	-
Pilocarpine hydrochloride, USP, dms. kilo.	1,500.00	2,000.00
Pimento see Allspice		
Pimento leaf oil, dms. lb.	14.50	-
Pine oil, 80% min. alcohol content, bulk, f.o.b. works 100 lbs	47.00	53.00
dms., c.l., t.l., same basis 100 lbs	51.00	54.00
a-Pinene, perfume grade kilo	1.62	-
tech. grade lb.	.18	.23
b-Pinene, perfumery grade. tanks. kilo	2.30	-
tech. grade. tanks lb.	.35	.40
Piperazine, anhyd., dms., t.l., frt. alld. E lb.	1.80	-
Piperazine citrate, 36%, dms., 1,100-lb. lots, frt. alld lb.	2.25	2.35
Piperazine dihydrochloride, 53%, dms., t.l., frt. alld lb.	2.00	-
Piperazine hexahydrate, 44%, dms., 1,100-lb. lots, frt. alld. lb.	1.60	-
Piperazine phosphate, 42%, dms., t.l., frt. alld lb.	1.60	-
Piperidine dist. 98% min., dms., c.l., t.l., works kilo.	6.92	-
Piperonyl butoxide dms., divd. E. lb.	5.00	-
Platinum, metal, works Troy oz.	585.00	-
Polycarbonate resin, pellets, nat., t.l., frt. alld lb.	1.84	1.86
Polyester resin, unsaturated, g.p., orthophthalic, bulk, tankcars, frt. alld lb.	.51	.53
Isophthalic, same basis lb.	.56	.62
Polyethylene resin, high-density, blow molding, g.p., hopper cars, frt. alld lb.	.43	.46
Injection molding, g.p., hopper cars, frt. alld lb.	.43	.46
extrusion, g.p., hopper cars, same basis lb.	.47	.48
wire and cable, nat., hopper cars, same basis lb.	.45	.49
wire and cable, black, same basis lb.	.55½	.57
Polyethylene resin, low-density, film liner, hopper cars, frt alld lb.	.36	-
clarity film, hopper cars, frt., alld lb.	.37	-
pallet shrink film, hopper cars, same basis lb.	.35	-
extrusion coating, hopper cars, same basis lb.	.38	.42
g.p., hopper cars, same basis lb.	.38	.42
Polyethylene linear low-density g.p. resin	.36	.40
blown film resin	.40	.43½
cast film resin	.40	.45
Polyethylene resin, low-density injection molding, g.p., hopper cars, same basis lb.	.45	.48
line wire, CATV, power cable lb.	.647	-
wire and cable thermoplastic high-voltage, natural color, same basis lb.	.70	.74½
wire and cable, XLPE low voltage, 14% carbon black, same basis lb.	.67½	.72½
wire and cable jacketing, black lb.	.587	.667
Polymyxin sulfate, USP, bulk, 50-billion units min. million units	.52	-
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works lb.	.73	-
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works lb.	.73	-
Polypropylene resin, homopolymer, g.p., nat., t.l., frt. alld lb.	.45	.48
copolymer, med. impact, nat., same basis lb.	.50	.56
high impact, same basis lb.	.53	.60
Colored material 6c. per lb. higher for each grade.		
Polystyrene resin, cryst., nat., hopper cars, frt. alld lb.	.48	-
impact, nat., hopper cars, same basis lb.	.51	-
high heat, high impact, nat., hopper cars, same basis lb.	.52	-
expandable beads (EPS), pkging grade, 1,000-lb. lots lb.	.69	-
modified, same basis lb.	.73	-
Polyvinyl alcohol, fully hydrolyzed, medium viscosity, bgs., t.l., divd lb.	1.00	1.05
partially hydrolyzed, medium viscosity, bgs., t.l., divd lb.	1.05	-
Polyvinyl chloride resin, g.p., homopolymer dispersion, bgs., t.l., divd lb.	.50	-
g.p. suspension, bulk, same basis lb.	.38	-
pipe grade, bulk, same basis lb.	.47	-
film grade, bulk, same basis lb.	.37	.47
Polyvinyl chloride, g.p. copolymer dispersion, same basis lb.	.58	.61
g.p. copolymer suspension, same basis lb.	.46	.49
Poppyseed, Dutch, bgs. lb.	.59	-
Turkey, bgs. lb.	.53	-
Potash agricultural (see Potassium muriate).		
Potash, caustic. liq., 45% basis, tanks, works 100 lbs.	13.00	-
West Coast, 50% basis, tanks, ex terminal 100 lbs.	18.06	-
reg. flake, 88-92%, 400-lb. dms., c.l., works 100 lbs.	42.35	-
Potassium acetate, NF, gran., dms., t.l. works E.	.90	1.31
Potassium bicarbonate, tech., gran., bgs., c.l., works lb.	.31½	-
Potassium bicarbonate, USP, gran., dms., t.l. lb.	.72	-

Potassium bichromate, gran., 400-lb. dms., c.l., t.l., works lb.	.48	-
Potassium bifluoride, tech., dms., t.l., works., frt. equald lb.	.45	.49
Potassium bitartrate, NF, gran., powd., bgs. lb.	.90	1.20
Potassium borohydride, powd. dms., 100-1,000 lbs., works lb.	18.00	20.00
Potassium bromate, gran., powd., 200-lb. dms., c.l., f.o.b. works lb.	1.06	-
Potassium bromide, NF., gran., dms., c.l. f.o.b. works lb.	1.12	-
Potassium carbonate, liq., 47% K_2CO_3, tanks, t.w., works 100 lbs.	14.60	-
dms., c.l., t.l., works 100 lbs.	20.65	-
calcined, 99-100% K_2CO_3, hopper cars or trucks, works 100 lbs	32.50	-
bgs., c.l., t.l., works 100 lbs.	35.20	-
drums 100 lbs.	36.40	-
Potassium carbonate, gran., purif., 400-lb. dms., 5-dm. lots lb.	.40	.46
Potassium chlorate, cryst., dms., c.l., works lb.	.14½	-
powd., dms., c.l., works lb.	.30	-
purif., gran., 325-lb. dms., f.o.b. shipping point lb.	.40	-
Potassium chloride, chemical grade, 99.95% KCl, bulk, c.l., f.o.b works ton	105.00	-
USP cryst. dms. lb.	1.12	-
USP gran., dms. lb	.67	-
USP powd., dms. lb.	.67	-
Potassium chloride, agricultural (see Potassium muriate).		
Potassium chromate, purif., cryst., dms., works lb.	.57	-
Potassium citrate, NF, gran., 200-lb. dms., frt. alld lb.	.93½	-
Potassium cyanide, dms., 20,000-lb. lots or more, f.o.b. works. lb.	1.32	-
Potassium dichromate (see Potassium bichromate).		
Potassium fluoborate, tech., dms., c.l., t.l., works, frt. equald. lb.	1.40	1.42
Potassium fluoride, anhyd., dms., t.l. lb.	1.68	-
Potassium gluconate, dms., t.l., f.o.b. works lb.	1.45	-
Price W. of Denver 4c. per lb. higher.		
Potassium guaiacolsulfonate, 300-lb. dms., 600 lbs. or more frt. equald lb.	2.10	-
Potassium hydroxide, tech. (see Potash, caustic).		
Potassium hydroxide, USP, pellets, 100-lb. dms., c.l., t.l., works, frt. equald lb.	1.29	1.31
Potassium iodide, USP, gran., cryst., dms., 1,000-lb. lots divd lb.	10.72	12.39
ACS grade truckload lb.	11.32	13.55
Potassium-magnesium sulfate, std., bgs., works ton	59.00	-
basis 40% K_2SO_4 and 55% $MgSO_4$ bulk, works ton	67.00	-
Potassium metabisulfate, gran., dms. t.l. lb.	.44	-
Potassium muriate, 60-62.4% min. K_2O, std., bulk, c.l., frt. equald., f.o.b. Sask., Canada ton	44.00	45.00
soluble, fine std., f.o.b. Sask. ton	46.00	47.00
coarse, f.o.b. Sask. ton	49.00	50.00
gran., f.o.b. Sask. ton	50.50	51.50
Potassium nitrate, fert. grade, std., 50-ton c.l., divd. SE. ton	267.00	274.00
prilled ton	277.00	284.00
tech., gran., bgs., c.l., min. 50 tons, divd. ton	470.00	-
Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm., frt. equald lb.	2.54	-
Potassium pentaborate, gran., bgs., c.l., works lb.	1.01	-
dms., same basis lb.	1.06	-
Potassium pentaborate powder 15c. per lb. higher.		
Potassium perchlorate, dms. c.l., works lb.	.78	-
Potassium permanganate, free flowing, bulk, hopper trucks, works lb.	1.09	-
50-kg. dms., same basis lb.	1.20	-
150-kg. dms., same basis lb.	1.17	-
Potassium permanganate, USP, 50-lb. kgs., works, c.l., t.l. lb.	1.38	-
Potassium persulfate, 225-lb. dms., 24,000 lbs. or more, f.o.b. plant cwt.	78.80	-
c/l/t same basis cwt.	72.50	-
Potassium pyrophosphate tetrabasic, bgs., c.l., t.l., works, E., frt. equald 100 lbs.	43.75	47.25
bulk, same basis 100 lbs.	46.00	49.50
Potassium salicylate, USP, gran., 200-lb. dms., 2,000 lbs. or more, works, frt. alld lb.	1.52	-
USP, powd., 300-lb. dms., 2,000 lbs. or more, same basis lb.	1.42	-
Potassium silicate, soln., 29.8-30.2 Be., 2.5 ratio, t.c., t.t., works 100 lbs.	18.90	-
dms., c.l., t.l., works. 100 lbs.	26.90	-
Potassium silicate, 40-40.5 Be., 2.1 ratio, t.c., t.l., works 100 lbs.	25.05	-
40-40.5 Be., 2.1 ratio, dms., c.l., t.l., works 100 lbs.	32.05	-
Potassium silicate, electronics grade, 30-30.4 Be., 2.1-2.2 ratio, t.c., t.l., works 100 lbs.	26.10	-
dms., c.l., t.l., works. 100 lbs.	33.10	-
solid or glass, 2.15 ratio, dms., c.l., t.l., works 100 lbs.	53.30	-
solid or glass, 2.5 ratio, dms, c.l., t.l., works	45.65	-
"Ratio" indicates percentage by weight of SiO_2 divided by percentage by weight of K_2O.		
Potassium silicofluoride, bgs., c.l., t.l., frt. equald lb.	.11½	.15
Potassium-sodium tartrate, NF, gran. or powd., dms. lb.	.80	1.20
Potassium sorbate, t.l. dms., divd. lb.	2.20	3.10
Potassium stannate, dms., frt. alld. lb.	N.A.	-
Potassium sulfate, agricultural grade, min. 50% K_2O std., bulk, c.l., f.o.b. works ton	150.00	160.00
Potassium sulfate, gran., purif., 400-lb. dm. lb.	.86	-

Potassium tetraborate, gran., bgs., c.l. works lb.	1.10	-
dms., same basis lb.	1.15	-
Potassium tetraborate powder 15c. per ton higher		
Potassium thiocyanate, USP, cryst., 225-lb. dms., 5-dm. lots lb.	4.01	-
tech., cryst., dms., t.l. lb.	.82	-
Potassium titanate, cins., c.l., works lb.	.71¾	-
Potassium-titanium fluoride, tech., dms., t.l., works, frt. equald lb.	1.24	1.59
Potassium-zirconium fluoride, tech., dms., t.l., works, frt. equald lb.	.78	-
Prednisone USP dms., 5 kilos or more gram	1.03	-
Prednisolone acetate, USP, dms., 5 kilos or more gram	1.12	-
Prednisolone, anhyd., USP, dms., 5 kilos or more gram	1.12	-
Procaine hydrochloride, USP, antibiotic grade, dms., 2,000-lb. lots, frt. alld lb.	4.95	5.75
Procaine hydrochloride, USP, ampule grade, dms., 1,000-lb. lots, frt alld lb.	4.95	5.50
Propionaldehyde, tanks, f.o.b. lb.	.35½	-
Propionic acid, syn., pure, tanks, divd. E. lb.	.33	.34½
n-Propyl acetate, tanks, divd lb.	.53½	-
n-Propyl alcohol, tanks, divd. lb.	.42	.44
n-Propyl gallate dms., 100 to 2,000-lb. lots, divd lb.	11.50	-
n-Propyl-p-hydroxybenzoate, USP, 500 kilos kilo	10.80	-
tech., 500 kilos, f.o.b. kilo	10.36	-
Propyl paraben (see n-Propyl-p-hydroxybenzoate)		
Propyl thiouracil, dms., 50-kilo lots or more kilo.	56.00	-
n-Propylamine, dms., c.l., divd lb.	.75	.80
Propylene, polymer grade, f.o.b. Tex. and La. Gulf Coast points lb.	.17¾	-
chemical grade same basis lb.	.15¾	.18
Propylene glycol, indust., tanks, f.o.b lb.	.40	.41
USP. tanks, f.o.b. E lb.	.43	.44
Propylene glycol monomethyl ether, tanks, divd. E. lb.	.49	-
Propylene oxide, tanks, f.o.b. works, frt. equald lb.	.47½	-
Psyllium seed, USP powd bgs. lb.	1.50	1.75
Pumice, dom., fine, 4F-0, bgs., ton lots ton	270.00	-
medium, 0½-1½, bgs., ton lots ton	300.00	-
coarse, 2-extra coarse, bgs., ton lots ton	300.00	-
Pumice, imp., Italian, fines, bgs., ton lots f.o.b. East Coast ton	280.00	-
medium, bgs., ton lots, f.o.b. East Coast ton	350.00	-
coarse, bgs., ton lots f.o.b. East Coast ton	300.00	-
Pyrazolone red (red 38), dms., works lb	5.25	5.35
Pyrethrum flowers, fine grd. 0.9% pyrethrins, ton lots, frt. alld. lb.	1.91	-
Pyrethrum, purif., 20% pyrethrins, dms., works lb.	37.50	37.75
Pyridine, refd., 2-deg., c.l. works dms. kilo	5.90	-
tanks kilo	5.70	-
Pyridoxine hydrochloride, USP, 100 kilos or more, divd kilo.	29.00	33.00
Pyrites, Canadian 48-50% S. mines long ton	4.50	5.00
Pyrogallic acid (see Pyrogallol)		
Pyrogallol, 100-lb. dms., 1,000-lb., lots, divd lb	13.70	15.25

Q

Quassin chips lb.	.57	-
Quinacridone maroon, dms., frt. alld lb.	20.75	24.25
red, dms., frt. alld lb.	17.75	19.00
scarlet, dms., frt. alld lb.	21.75	24.25
violet, dms., frt. alld lb.	17.75	19.00
Quince seed, bgs. lb.	2.00	2.75
Quinidine sulfate, USP, 1,000-oz. dms., 2,000 oz. or more oz.	4.20	4.25
Quinine hydrochloride, NF, 1,000-oz. dms., 2,000 oz. or more oz.	2.46	2.50
Quinine sulfate, USP XVIII, 1,000-oz. dms., 2,000 oz. or more oz.	2.30	2.50
Quinoline, dms., t.l., frt. equald lb.	1.49	-
tanks, same basis lb.	1.43	-

R

R salt tech., 304 molecular wt. lb.	2.12	-
Racemethionine, USP, 50-250 kilos kilo	6.80	-
250-500 kilos kilo	6.60	-
500 or more kilos kilo	6.50	-
feed grade, 99% min., c.l., t.l. lb.	1.07	-
Rapeseed oil, dms. lb.	.58½	.62½
Rauwolfia serpentina root, powd. bls., dms. kilo.	22.00	-
Red carmine. No. 40 (see Carmine No. 40)		
Red precipitate. (see Mercuric oxide, red).		
Reserpine, USP, cryst., bots. gram.	.40	.42½
Resorcinol tech., bgs., t.l., works. divd. kilo.	3.96	-
Resorcinol, USP, cryst., dms. 50 kilos or more, works kilo.	9.35	-
powd. dms., same basis kilo.	9.80	-
Resorcinol monoacetate, dms., 1,000 lbs. or more lb.	1.98	-
Rhodamine red toner, molybdated, PMA, dms., works lb.	9.25	-
tungstated, PTMA, dms., f.o.b. works lb.	11.60	14.00
Rhodinol, 25-lb. cns. lb.	106.00	105.10
syn., dms. lb.	15.25	-
Rhubarb root, India, whole, bgs. lb.	.45	.68
powd., bgs. lb.	.61	.70
Riboflavin, feed grade, 25 kilos, divd. kilo.	34.60	-
Riboflavin, USP, 25 kilos, divd. kilo.	43.00	46.00
Riboflavin 5-phosphate-sodium, 25-kilo lots kilo.	138.00	-

Rosin oil, refined dms. t.l. lb	1.25	-
Ricinoleic acid (see Castor oil acids, split)		
Rochelle salt (see Potassium-sodium tartrate)		
Roofing pitch (see Coaltar pitch, roofing)		
Rose oil, nat., NF, Bulgarian, otto kilo	3850.00	3990.00
bots. kilo	2250.00	3000.00
Turkish, otto, bots.		
Rosemary oil, NF, Spanish, dms. kilo	9.00	11.00
Tunisian, dms. kilo	8.75	15.00
Rotenone resin, 30-45%, 100 lb dms works unit-lb	21	23

S

Saccharin NF, gran., soluble, dms. 1,000-lb. lots, frt. alld lb	2.50	2.75
Saccharin NF, powd., soluble, dms., less than 20,000-lb lots, frt. alld lb	3.75	-
Safflower oil, non-break tanks, N.Y lb	.47	.50
edible dms., N.Y., divd lb	.93	.97
Sage leaves, Dalmatian, No 1, bgs lb	1.95	-
Albanian, bgs. lb	1.60	-
Turkish lb	1.15	1.25
Sage oil, Clary, French, bots kilo	90.00	-
Dalmatian, cns. lb	9.50	10.00
Spanish, cns. kilo	12.50	-
Salicylaldehyde, tanks, f.o.b lb	3.60	-
Salicylamide, NF, gran., powd., dms., 2,000-lb. lots, one ship. lb	1.07	1.10
Salicylic acid, tech., dms., c.l., t.l., works lb	1.23	1.41
USP, cryst., dms., 1,000 lbs. or more lb	1.33	1.63
USP, powd., dms., 1,000 lbs. or more lb.	1.68	-
Salol (see Phenylsalicylate)		
Salt, evaporated, common, 80-lb bgs., c.l., t.l., North, works 80 lbs.	4.02	-
bulk, same basis ton	60.00	61.20
chemical grade, same basis 80 lbs	4.30	-
Salt, rock, medium, coarse, same basis 80 lbs.	2.70	-
bulk, same basis ton	18.00	25.00
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis, f.o.b. works E ton	65.00	98.00
same basis W ton	90.00	99.00
Sandalwood oil, E. Indian kilo	145.00	-
Indonesia kilo	102.00	-
Sarcosine, tech., tanks, works, frt equald lb.	.50	-
Schaeffer's salt, paste, dms., 100% basis, works lb	2.59	-
Scopolamine hydrobromide, USP, 100-oz. lots bots oz	36.00	46.50
Sebacic acid, CP, bgs., c.l., works lb	1.95	-
purif., bgs., c.l., works lb	1.94	-
Seidlitz mixture, dms., 5,000-lb. lots lb	.30½	-
Selenium, powd., 99.99% Se, dms., divd lb	13.00	-
coml., 99.5% Se, same basis lb	10.00	15.00
Senna leaves, Alexandria, whole and half, bls. lb	.75	.80
Tinnevelly, No 1, bls. lb.	.70	.71
powd., bbls., bxs. lb	.90	1.10
Sesame oil, USP, dms., l.c.l. lb	1.00	1.20
Sesame seed, Central American, hulled, bgs. lb	.50	.51
Senna pigment, burnt, paper bgs., l.c.l., works. lb.	.19½	.28½
raw, paper bgs., l.c.l., works lb.	.18¼	.23¾
Silica, amorph. dry-grd., bgs., c.l., works 93%, 200 mesh. ton	31.00	32.50
98%, 200 mesh ton	32.00	33.50
93%, 97%, 325 mesh ton	34.50	35.50
98.5%, 325 mesh ton	37.00	-
99.5%, 325 mesh ton	51.50	54.50
Silica, dry-grd., bgs., c.l., works, 99.9%, 400 mesh, micronized ton	72.00	75.50
99% under 15 microns, micronized ton	79.50	82.50
99% under 10 microns, micronized ton	104.00	105.00
Silica, hard-quartz, 99.5% SiO_2, 325 mesh, bgs., c.l., works ton	37.00	-
140 mesh, bgs., c.l., works ton	34.75	-
Silicon tetrachloride, tech., dms., c.l., works lb.	.50	-
tanks, works lb.	.30	-
Silver bullion, ingots, cs., Troy oz.	5.665	-
Silver cyanide, 80% Ag 500-oz. lots oz.	4.51875	-
Silver nitrate, ACS, 63.2 Troy oz. AG/100 avoir. oz. $AgNO_3$ oz.	3.3857	-
Soapbark, crushed, bls. lb.	1.00	-
powd., bls. lb.	1.35	1.86
Soda ash, dense, 58%, 100-lb., paper bgs. c.l., works, f.o.b. ton	120.00	-
bulk, c.l., same basis ton	83.00	-
light 58%, 100-lb., paper bgs., c.l., same basis ton	150.00	-
bulk, c.l., same basis ton	123.00	-
Soda, caustic, liq., 50%, sellers tanks, Gulf Coast works, f.o.b., frt. equal., 76% Na_2O ton.	175.00	195.00
73%, same basis ton.	205.00	225.00
flake, 76%, 400-lb dms, c.l. works ton.	500.00	570.00
solid, 76%, 700-lb. dms, c.l. works ton.	520.00	570.00
gran., 75%, 450-lb. dms, c.l. works ton.	520.00	-
beads, 76%, 400-lb. dms., c.l., works 100 lbs.	27.50	28.50
Prices for liq. rayon-type, $15 ton higher. Prices in West 70c. higher for solid, and $20-$30 ton higher for gran. and beads.		
Soda, sal., conc., bgs., c.l. works 100 lbs.	3.35	3.85
Sodium acetate, anhyd., bgs., c.l., f.o.b. works lb.	.54	-
Sodium acetate, USP, 60%, gran. 100-lb. dms., c.l., works lb.	.57	-
Sodium alginate, NF, white powd., dom., 300 lbs. or more lb.	6.00	6.75
Sodium p-aminosalicylate, dms., 100-lb. lots or more, f.o.b. works lb.	4.73	-
Sodium antimonate, bgs., c.l., divd. E. lb.	1.49	1.50
Sodium ascorbate, USP, dms., 100 kilos kilo.	9.30	10.50
Sodium benzoate, tech., bgs., c.l., t.l., frt. alld lb.	.70½	-
Sodium benzoate, USP, 50-lb. bgs., c.l., t.l., frt. alld lb.	.83½	-
ton-lots, same basis lb.	.86½	-
100-lb. dms., c.l., t.l., same basis lb.	.89	-
ton-lots, same basis lb.	.92	-

Sodium bicarbonate, USP, powd., reg. grade, bgs., c.l., t.l., works, frt. equald 100 lbs.	17.05	-
coarse, same basis 100 lbs.	18.05	-
fine, same basis 100 lbs.	17.20	-
gran., same basis 100 lbs.	17.85	-
gran., fine, same basis 100 lbs.	17.60	-
Sodium bichromate, gran., bgs. c.l., t.l., works, frt. equald lb.	.57	-
Sodium bifluoride, 400-lb. dms., c.l., frt equald lb.	.76	-
100 lb bgs., c.l., same basis lb.	.76	-
Sodium bisulfate, bulk, c.l., works ton	175.00	-
dms., c.l. 100 lbs.	13.00	-
Sodium bisulfite, anhyd. bgs., c.l., t.l., works, East 100 lbs.	28.50	-
works, West 100 lbs.	32.00	-
Sodium bisulfite, soln., 38%, bulk, 100% basis, works, East 100 lbs.	20.60	-
soln., 100%, bulk, works, West 100 lbs	20.00	-
photographic grade, 43% soln., works 100 lbs.	21.90	-
Sodium borate NF, gran., bgs., c.l., works lb.	.51	-
powd., same basis lb.	.52	-
Sodium borohydride, powd., dms., 1000-5000 lbs. works lb.	19.88	21.90
Sodium borohydride, stabilized water soln., 12% $NaBH_4$, 100% basis, 3000 gal. tankwagon, works. lb.	17.45	-
Sodium bromide, 99%, gran., 400-lb. dms., f.o.b. works lb.	1.04	-
Sodium carbonate, decahydrate, bgs, c.l., t.l., works ton.	264.00	-
Sodium carbonate, cryst monohydrate (see Soda, ash)		
Sodium carbonate, monohydrated, bgs., c.l., t.l., works ton	392.00	-
Sodium carboxymethyl cellulose (see CMC.)		
Sodium chlorate, bulk, t.c., t.t., delivered, N.E. ton	315.00	-
delivered, S.E. ton	335.00	-
Sodium chlorate, cryst., 450-lb. dms., c.l., works, E. lb.	.27	-
Sodium chloride, tech. (see Salt.)		
Sodium chloride, USP, gran., bgs. lb.	.29	-
Sodium chlorite, tech., dms., c.l., works lb.	1.17	1.27
Sodium chromate, anhyd., dms., c.l., t.l., works lb.	.67	-
Sodium chromate, tetrahydrate, bgs., c.l., t.l., works lb.	.64	-
Sodium citrate, gran., anhyd., 200-lb. dms., c.l., t.l., N.Y. lb.	1.95	-
Sodium citrate, USP, gran., dihydrate, 100-lb. bgs., t.l., f.o.b. shipping point lb.	.74½	-
Sodium cyanate, dms 1,000-lb. lots, works lb.	.85	-
Sodium cyanide, briquettes or gran., 99% min., 200-lb. dms, min., f.o.b. works lb.	.68	-
Sodium diacetate, anhyd., dms., c.l. works lb.	.68	-
Sodium diacetate, FCC, 50-lb. bgs., t.l., divd. E. of Rockies lb.	.61	.67
Sodium diacetate, tech., 50-lb. dms., c.l., works lb	.52	-
Sodium erythorbate, powd., gran., t.l. or mixed t.l., f.o.b. shipping point lb	2.60	2.85
Prices W. of Denver 2c. per pound higher.		
Sodium ferrocyanide, bgs., t.l., works lb.	.60	-
Sodium fluoborate, tech., gran., dms., t.l., works, frt. equald. lb.	1.77	-
Sodium fluoride, white, 97%, 400-lb. dms., c.l., works, frt. equald lb.	.6345	-
100 bgs., c.l., same basis lb.	.60	-
USP powd., 200-lb. dms., t.l., f.o.b. shipping point lb.	4.69	-
Sodium formate, bgs., c.l., works lb	.20	-
Sodium gluconate, tech., 50-lb. bgs., 2,500 lbs. or more frt. alld. lb.	.60	-
Sodium hydride, oil dispersion, 60% NaH, 167-lb. dms., 10 dms., works lb.	1.86	-
Sodium hydrosulfide. (see Sodium sulfhydrate.)		
Sodium hydrosulfite, dms., c.l., t.l., f.o.b. shipping point E. lb.	.84	-
Sodium hydroxide, USP, pellets, 100-lb. dms., c.l., t.l., works, frt. equald lb.	.95	.98
Sodium hydroxide, tech. (see Soda, caustic.)		
Sodium hypophosphite, EN grade, 300 lb. dms f.o.b. works lb.	1.425	1.50
110 lb. dms. lb.	1.47	1.52
Sodium hyposulfite (see Sodium thiosulfate).		
Sodium iodide, USP, cryst., 300- to 500-lb. lots. dms. frt. equald lb.	14.72	-
Sodium lauryl sulfate, 30%, tanks, f.o.b. works lb.	.29	.32
Sodium lignin sulfonate, bgs., c.l., works 100 lbs.	25.50	-
Sodium metabisulfite (see Sodium bisulfite).		
Sodium metaborate, octahydrate, gran., bgs., c.l., works lb.	.38	-
tetrahydrate, gran, bgs, c.l., works lb.	.49	-
Sodium, metallic, 12-lb. bricks, dms., c.l. works lb.	.93	-
fused, dms. 24,000-lb. lots or more, works lb.	.67	-
tanks, works lb.	.70	.80
Sodium metaphosphate, tech. bgs., c.l., f.o.b. shipping pt. frt. equald 100 lbs	61.50	-
food grade, bgs. c.l. f.o.b. frt. equald 100 lbs.	68.25	-
Sodium metasilicate, anhyd., bgs., c.l. works 100 lbs.	27.25	-
bulk, c.l., works 100 lbs.	25.30	-
pentahydrate, bgs., c.l., f.o.b. shipping point 100 lbs.	18.95	-
bulk, c.l. works 100 lbs.	17.20	-
Sodium molybdate, anhyd., dms. f.o.b. works, 100 lbs and over lb.	4.67	-
cryst., dms., t.l., same basis lb.	4.12	-
Sodium naphthionate, dms., c.l., t.l., f.o.b. works lb.	2.00	-
Sodium Nitrate, USP, bgs., c.l., f.o.b., frt. equald 100 lbs.	34.50	-
Sodium nitrate, dom., industrial, bgs., c.l., works ton	284.00	292.00
bulk, c.l., works ton	260.00	-
imp., coml., 100-lb. bgs., c.l., Atl., or Gulf whse. ton	205.00	214.00
bulk, c.l., same basis ton	182.00	-
imp., agricultural, bulk, c.l., same basis ton	140.00	-
Sodium nitrite, USP, dms., c.l., works, frt. equald 100 lbs.	37.25	-

Sodium orthosilicate, tech., anhyd., bgs., c.l., works 100 lbs.	34.50	-
Sodium orthosilicate, tech., hydrated, flake, dms., c.l., works. 100 lbs.	27.45	-
bgs., c.l., works 100 lbs.	26.25	-
Sodium oxalate, 98%, bgs., t.l., works lb.	.45	-
Sodium pentachlorophenate, beads c.l., 30,000-lb min. lb.	.67	-
bgs. lb.	.68	-
Sodium pentobarbital (see Pentobarbital-sodium).		
Sodium perborate, tetrahydrate, tech., bgs., c.l., t.l., works lb.	.32½	.36½
Sodium persulfate, 225-lb. dms., 24,000 lbs. or more, f.o.b. plant lb.	.63½	-
55-lb. bgs. same basis lb.	.62	-
Sodium phenobarbital (see Phenobarbital-Sodium).		
Sodium phenosulfonate, powd., dms., lb.	.76	-
Sodium phosphate, anhyd., dibasic tech., bgs., c.l., t.l., works, frt. equald 100 lbs.	54.50	-
food grade, same basis. 100 lbs.	57.50	-
Sodium phosphate, monobasic, tech., same basis 100 lbs.	55.75	-
food grade, same basis. 100 lbs.	59.75	-
tribasic, tech., same basis. 100 lbs.	52.25	52.75
food grade, same basis. 100 lbs.	63.25	-
chlorinated, same basis. 100 lbs.	31.50	-
cryst., tech., same basis. 100 lbs.	30.50	-
cryst., food grade, same basis 100 lbs.	35.50	-
USP, dried, powd., bgs., dms., works lb.	.19	.20½
Sodium picramate, tech., paste. 200-lb. dms., dry basis, divd. lb.	5.50	-
Sodium propionate, dms., 2,000 lbs. or more, f.o.b. frt. alld lb.	.54	-
Sodium pyrophosphate, acid, tech., bgs., c.l., works, frt. equald. 100 lbs.	58.25	-
food grade, non-leavening, bgs., c.l., works, frt. equald 100 lbs.	61.25	-
Sodium pyrophosphate, ferric, dms., c.l., t.l., works lb.	.3880	-
Sodium pyrophosphate, tetrabasic, anhyd., tech., bgs., c.l., t.l., works, frt. equald 100 lbs.	44.75	-
bulk, hopper cars, same basis 100 lbs.	42.50	-
food grade, bgs., c.l., t.l., same basis 100 lbs.	53.00	-
Sodium salicylate, USP, cryst., 200-lb. dms., 1,000-lb. lots or more, works, frt. equald lb.	3.00	-
USP, powd., 200-lb. dms., 1,000-lb. lots or more, same basis lb.	3.05	-
Sodium sesquicarbonate, bulk, c.l., t.l., works ton.	170.00	-
bgs, c.l., t.l. works 100 lbs.	198.00	-
Sodium silicate, solid, or glass, 3.22-3.25 ratio, bulk, c.l., t.l., works 100 lbs.	15.70	-
bgs., c.l., t.l., works 100 lbs.	27.75	-
1.95-2.00 ratio, bulk, c.l., t.l., works 100 lbs.	20.30	-
bgs., c.l., t.l., works 100 lbs.	22.15	-
soln., 37.6° solid, 3.22-3.25 ratio, bulk, c.l., t.l., frt. equald 100 lb.	6.30	-
"Ratio" indicates percentage by weight of SiO_2 divided by percentage by weight of Na_2O.		
Sodium silicofluoride, bgs., c.l., t.l., works, frt. equald 100 lbs.	17.95	19.75
Sodium stannate, dms. wks. frt. alld E lb.	N A	-
Sodium sulfanilate, dms, works lb.	.22	-
Sodium sulfate, NF XII, powd., dms., 2,000-lb. lots lb.	.23½	-
tech., detergent, rayon-grade, c.l., works, Gulf ton	90.00	96.00
Sodium sulfate, West, bulk, c.l., works, frt. equald ton	90.00	101.00
bulk, c.l., East, same basis ton	113.00	114.00
Sodium sulfate, photo grade, 100-lb. bgs., c.l., works ton	47.00	53.00
Sodium sulfhydrate, flake, 70-72%, dms., c.l., works, frt. equald ton	500.00	-
liq., 44-46%, tanks, works, frt. equald ton	500.00	-
Sodium sulfide, flake, dms., c.l., works, E., frt. equald ton	470.00	-
bgs., same basis ton	410.00	-
Sodium sulfide, fused, dms., c.l., works, E., frt. equald ton	240.00	-
Sodium sulfite, anhyd., tech. 95-100% bgs, f.o.b. works 100 lbs.	23.78	-
Sodium sulfocyanide CP (see Sodium thiocyanate).		
Sodium tetraborate (see Borax).		
Sodium tetrasulfide, liq. 34%, dms., c.l., works, frt. equald ton	540.00	-
Sodium thiocyanate, purif., cryst., 250-lb. dms., 5 dms. or more f.o.b. works lb.	3.26	-
tech., anhyd. dms., 2,000 lbs. or more, works lb.	.97	-
Sodium thiosulfate, tech., photo-grade, anhyd., 100-lb. bgs., c.l., t.l., works, frt. equald 100 lbs.	45.50	-
cryst. pentahydrate, c.l., t.l., same basis 100 lbs.	28.50	-
Sodium titanate, dms., c.l., works lb.	.14¼	-
Sodium trichloroacetate, 95%, 50-lb. bgs., c.l., frt. alld. E. lb.	.28	-
Sodium tripolyphosphate, tech., bgs., c.l., t.l., works, frt. equald. 100 lbs.	39.75	-
bulk, hopper cars, same basis. 100 lbs.	37.50	-
food grade, bgs., c.l., t.l., same basis 100 lbs.	48.50	-
Sodium tungstate, tech. high moly., dms., 10,800 lbs. or more, frt. alld lb.	5.00	5.50
Folin grade dms., 10,800 lbs. or more, same basis lb.	8.00	-
Sodium-ammonium phosphate, purif., cryst., dms., works lb.	.62	-
Sodium-formaldehyde sulfoxylate, dms., t.l., f.o.b. works lb.	.91	-
Sodium-zirconyl sulfate, dms., 1,000-lb. lots or more, works lb.	.26	-
tech., dms., any quantity, works lb.	.16	-
Solvent naphtha, petroleum, straight aromatic, b.r. 320°-350°F, 56°F m.a.p., tanks:		
New Jersey gal.	1.52	-
Houston gal.	1.41	-
Illinois gal.	1.54	-
Solvent naphtha, petroleum, straight aromatic, b.r. 360°F-410°F, 60°F m.a.p., tanks:		
New Jersey gal.	1.30	1.35
Houston gal.	1.30	-
Illinois gal	1.30	1.35
Sorbic acid, t.l. dms., divd. lb.	2.20	3.10

CHEMICAL PRICES

WEEK ENDING SEPT 26, 1986

Sorbitan monostearate, dms., c.l., t.l., 30,000 lb. min., f.o.b. works lb.	.76	-
Sorbitan tristearate, c.l., t.l., 30,000 lb. min., f.o.b. works lb.	.80	-
Sorbitol, USP, reg. 70% aqueous, dms., c.l., f.o.b. shipping point lb.	.35	-
tanks, f.o.b. shipping point lb.	.30	-
gran., dms., c.l. t.l., works lb.	.70	.74
powd., dms., c.l., t.l., works lb.	.68	.72
Soybean meal (See Oils, Fats & Waxes market report.)		
Soybean oil (See Oils, Fats & Waxes market report.)		
Soybean oil acidulated, soapstock, 95% acid, tanks, New York lb.	.14	.15
Soybean oil, acid, dbl. dist., dms. lb.	.48	.59
tanks lb.	.43	.44
s.d., dms. lb.	.47	.58
tanks lb.	.38	.43
Spearmint leaves, imp., bls. lb.	2.50	2.70
Spearmint oil, Far West, native lb.	14.00	15.00
Midwest, native lb.	10.00	12.00
Far West, Scotch lb.	15.00	15.50
Midwest, Scotch lb.	14.60	15.25
Spruce oil, dms. lb.	8.00	-
St. John's bread, edible, bls. lb.	.29	.30
Stannic chloride, anhyd., dms., works lb.	N.A.	-
Stannic oxide, dms., works lb.	N.A.	-
Stannous chloride, anhyd., dms. wks lb.	N.A.	-
Stannous fluoborate, liq., conc., dms., t.l., works, frt. equald lb.	2.50	-
Stannous oxide, dms., works lb.	N.A.	-
Stannous sulfate, dms., works lb.	N.A	-
Stearic acid, double pressed, bulk lb.	.26	.39
single-pressed, bulk lb.	.28	.375
triple-pressed, bulk lb.	.32	.40
Stramonium leaves, bgs. lb.	.15	.20
Streptomycin sulfate, USP, bulk. kilo.	47.00	-
Strontium carbonate, glass grd., bgs., t.l., works lb.	.37¼	-
Strontium nitrate, 50-15 bgs., c.l., works 100 lbs.	51.50	-
Styrene monomer, 99.6% min., t.c., t.l., f.o.b. works lb.	.22	.27
Styrene-acrylonitrile resin, nat., bulk, f.o.b. plant lb.	.77	-
cryst., bulk, same basis lb.	.77	.81
clear, same basis lb.	.77	.81
Styrol acetate, dms. lb.	2.35	-
Succinic acid, purif., cryst., dms., t.l., frt. alld lb.	2.00	2.10
Succinic anhydride, dms., c.l., t.l., f.o.b work lb	1.71	-
Sucrose, refd., white, bgs., c.l., f.o.b refy. E. 100 lbs.	33.10	-
Sucrose acetate, isobutyrate, 90% dms., t.l., divd lb.	1.16	-
tanks, divd lb	1.10	-
100%, dms., t.l., divd lb.	1.18	-
Sucrose octa-acetate, denaturing grade, 100-lb. dms., f.o.b. works kilo	12.50	13.50
Sulfabenzamide, dms., 500 kilos. kilo	39.50	-
Sulfabenzamide-sodium, dms., 500 kilos kilo.	25.00	-
Sulfacetamide, USP, dms., 500 kilos kilo.	20.00	23.50
Sulfadiazine, USP, powd. dms., 500 kilos kilo.	53.00	-
Sulfadiazine-sodium, USP, dms., 500 kilos kilo.	40.70	-
Sulfamerazine, USP, microcrystals, dms., 500 kilos kilo.	33.50	-
USP, powd., dms., 500 kilos kilo.	32.00	-
Sulfamethazine-sodium, USP, powd. dms., 50 kilos kilo.	13.00	-
Sulfamethazine, powder, dms., 500 kilos kilo.	9.00	10.00
Sulfamic acid, cryst., bgs., c.l., t.l., works 100 lbs.	38.00	41.00
Sulfamic acid, gran., dms., c.l., t.l., works lb.	.38	-
Sulfanilamide, NF, reg. 1,000-lb. dms., frt. equald lb.	2.00	-
Sulfanilic acid, tech., bgs., t.l., f.o.b. works lb.	.67½	-
Sulfaquinoxaline, veterinary, grade, dms. lb.	8.00	-
Sulfur, crude, bright, molten, dom., f.o.b. vessels, Gulfports long-ton	150.00	-
f.o.b. La. refy long-ton	125.50	-
recovered, divd., Houston long-ton	125.50	-
ex terminal, Rotterdam long ton	135.00	-
f.o.b. tanks, Alberta, Canada, for US delivery long-ton	102.00	-
dark, ex-Tampa, Fla. long-ton	157.50	-
Sulfur, crude, 99.5% min. purity, coml. flour, 50-lb. bgs., c.l., mines basis 100 lbs.	13.60	-
lump, same basis 100 lbs.	13.60	-
Sulfur, refd., 99.5% min. purity, rolls 50-lb. bags, c.l., mines basis 100 lbs.	17.50	-
flour, light, 50-lb. bgs., same basis 100 lbs.	20.00	-
Sulfur, refd., sublimed, NF, 99.85% min. purity, 50-lb. bgs., c.l. mines basis 100 lbs.	26.00	-
Sulfur, rubbermakers, 99.5% min. purity, coml., reg., 50-lb. bgs., c.l., mines basis 100 lbs.	14.60	-
fine, 98% min. passing through 325 mesh, same basis 100 lbs.	15.60	-
Sulfur dichloride, dms., c.l., works, frt. equald lb.	.24	-
tanks, same basis lb.	.17¼	-
Sulfur dioxide, liq., bulk, t.c., t.l., f.o.b. works ton	230.00	-
Sulfur monochloride, dms., c.l., works, frt. equald lb.	.22½	-
tanks, same basis lb.	.16¾	-

CHEMICAL PRICES

WEEK ENDING SEPT 26, 1986

Sulfuric acid, virgin 100% tanks, works,			
East Coast	ton	71.75	95.90
Gulf Coast	ton	75.00	88.40
Midwest	ton	80.25	-
Southeast	ton	68.15	-
West Coast	ton	85.00	-

NOTE: For prices on 60 and 66 Be., multiply by .7767 and .9319, respectively. For price of 20% fuming oleum, as is, add $3-$4 to above prices and multiply by 1.045.

Sulfuric acid, smelter, 100% tanks, works,			
Gulf Coast	ton	48.00	52.00
New Mexico	ton	20.00	25.00
Southeast	ton	63.15	-
93%, tanks, divd., Northwest	ton	60.00	65.00
Sunflowerseed oil, crude, f.o.b. Minneapolis	lb.	.14	.14½
Superphosphate, triple, 46% or more, a.p.a., run-of-pile, bulk, c.l., Fla.	unit-ton	2.75	3.05
bulk, gran., c.l., Fla.	ton	160.00	165.00

T

Talc, dom., grd. New York bgs., c.l., works	ton	84.00	-
99.5%, 325 mesh, bgs., c.l., works	ton	84.00	90.00
Talc, dom., 99.5%, 400 mesh, micronized, bgs., c.l., works	ton	187.00	238.00
625 mesh, micronized, bgs., c.l., works	ton	200.00	-
dom., ord., Calif. grd., bgs., c.l., works	ton	90.00	-
ord., Vermont, off-color grd., bgs., c.l., works	ton	136.00	-
Imp., Canadian, grd., bgs., c.l., works	ton	70.00	84.00
Tall oil, crude, Southeast, tanks, works, frt. equald.	ton	135.00	140.00
Tall oil, refd., acid, same basis	lb.	.31	-
dist., tanks, same basis	lb.	.19	.23
Tall oil acids, 2% or more rosin, tanks, works, frt. equald.	lb.	.20½	.23½
less than 2% rosin acid	lb.	.22	.27
Tallow (see Oils, Fats & Waxes market report.)			
Tallow, fatty acids, tech., non-ret. dms., c.l., divd	lb.	.37	.40
tanks, divd.	lb.	.29	.45
hydrogenated, tech., flake, bgs., c.l., divd.	lb.	.37	.33
tanks, divd.	lb.	.35	.42
Tangerine oil, Fla., dms. f.o.b.	lb.	10.50	11.00
Italian, dms.	kilo	52.90	-
Tankage, animal feeding, 9-11%, NH_3, New York, bulk	unit-ton	5.50	-
Tankage, fert. grade (see Nitrogenous proces tankage).			
Tannic acid, NF, fluffy, bbls., 1,000-lb. lots	lb.	6.09	-
tech., powd., dms.	lb.	4.62	-
Tar acid oil, 15-18% t.l., dms., f.o.b works	gal.	1.40	-
25-28%, t.l., dms., f.o.b. works	gal.	1.59	-
50-53%, t.l., dms., f.o.b. works	gal.	1.87	-
Tartaric acid, NF, bgs.	lb.	1.20	1.50
Tellurium, metallurgical, f.o.b. works	lb.	12.00	-
Terpinhydrate, NF, imp., cryst., powd., 36 kilo drums, f.o.b. ship. pt., frt. equald.	lb.	1.35	-
Terpineol	lb.	1.10	1.50
Terpinyl acetate, extra, dms	lb.	2.40	-
prime, dms.	lb.	1.35	2.05
Terpinyl propionate, dms.	lb.	4.50	-
Tetrachloroethylene, tech. (see Perchloroethylene).			
Tetrachloroethylene, USP, dms., c.l., t.l., works	lb.	.30¼	-
Tetraethyl orthosilicate, bulk, f.o.b. works	lb.	1.53	1.66
Tetraethylene glycol, tanks, frt. alld.	lb.	.67	-
Tetraethylene glycol diacrylate, t.l. dms., f.o.b. works	lb.	1.50	-
Tetraethylenepentamine, tanks, same basis	lb.	1.70	1.75
Tetraethylthiuram disulfide, tech., flake, dms., t.l., frt. alld.	lb.	.88	2.07
Tetrahydrofuran dms., c.l., t.l., f.o.b. works	lb.	1.02	-
tanks, same basis	lb.	.96	-
Tetrahydrofurfuryl alcohol tanks, f.o.b. Memphis, Tenn.	lb.	.90	-
Tetrahydrolinalool, syn., dms	lb.	7.20	-
Tetrahydrophthalic anhydride dms., c.l., t.l. f.o.b. works	lb.	.65	-
Tetrapotassium phosphate (see Potassium phosphate, tetrabasic).			
Tetrasodium pyrophosphate (see Sodium pyrophosphate, tetrabasic.)			
Thallium metal, divd.	lb.	35.00	-
Thallium sulfate, 99%, bots., divd.	kilo	140.00	-
Theobromine, bulk f.o.b. works	lb.	4.00	4.50
Theophylline, USP, anhyd. 50-kilo dms., 10,000-kilo lots	kilo	12.00	12.95
Thiamine hydrochloride, USP 100-kilo dms., divd.	kilo.	27.00	31.00
Thiamine mononitrate, USP, 100-kilo., dms., divd.	kilo.	27.00	31.00
Thiodiphenol, 98%, dms., f.o.b. works	lb.	3.35	-
Thioflavin green toners, molybdated, PMA, dms.	lb.	5.40	6.05
tungstated, PTA, dms	lb.	5.60	5.85
Thioglycolic acid, refd., dms., ton lots 100% acid basis	lb.	2.07	-
Thioindigoid maroon, dms., frt. alld.	lb.	7.50	-
reds, dms., frt. alld.	lb.	5.88	6.12
Thionyl chloride, high-purity, 99.6%, 24,000-lb. min. t.l., dms. frt. equald.	lb.	.55	-
Thorium nitrate, purif., dms., 100-lb. lots or more, works	lb.	2.75	-
dl-Threonine, dms 10 kilos wks	kilo.	128.00	-
Thyme leaves, French, bgs.	lb.	1.45	-
Spanish, bgs.	lb.	.78	1.20
Thyme oil, NF, red, dms.	kilo	20.00	-
NF, white, dms.	kilo	22.00	-
Thymol, NF	lb.	3.75	6.15
Thymol iodide, dms., 100-lbs. f.o.b. works	lb.	52.30	56.20
Tin metal (NY composite)	lb.	N.A.	-
Titanium dioxide, anatase, bgs., 20-ton lots, frt. alld.	lb.	.77	.79
slurry shipments, 50-ton lots, dry basis, frt. alld.	lb.	.78	-
Titanium dioxide, rutile, reg., bgs., 20-ton lots, frt. alld.	lb.	.81	.84
slurry shipments, 50 ton lots, dry basis, frt. alld.	lb.	.84	-
Non-chalking rutile material costs 1c. per pound more.			
Titanium hydride powd. electronics grade, dms.	lb.	26.50	-
Titanium tetrachloride, tech., bulk, c.l., f.o.b. works	lb.	.30	.35
200-gal cylinders c.l., same basis	lb.	.50	-
Titanium sponge, 99.3%, fiber drums, less than 5,000 lbs. f.o.b. wks.	lb.	4.85	-
Tobias acid, 2,000 lbs. or more	lb.	2.45	-
d-a-Tocopherols, 67%, dms.	kilo	50.08	-
d-a-Tocopheryl acetate, 81% conc., dms.	kilo	57.49	-
d-a-Tocopheryl acid succinate, cryst., dms.	kilo	78.44	-
dl-a-Tocopherol, dms.	kilo.	27.40	-
dl-a-Tocopheryl acetate, USP 50-kilo dm. 1000 kilo min.	kilo.	16.00	18.50
50% dry powd., 50-kilo dm.	kilo	17.00	-
Tolu balsam, cns.	lb.	7.60	8.68
Toluene, petroleum, ind. or nitration, tanks			
Atlanta, Ga., divd.	gal.	.73	-
Bayonne, N.J., divd.	gal.	.73	-
Baytown, Tex., f.o.b.	gal.	.73	-
Chicago, Ill. divd.	gal.	.73	-
Clairton, Pa., f.o.b.	gal.	.73	-
Deer Park, Tex., f.o.b.	gal.	.73	-
Ft. Wayne, Ind., divd.	gal.	.73	-
Gulf Coast, spot, barges	gal.	.68	.69
Houston, Tex., divd.	gal.	.73	-
New Jersey Metro, divd	gal.	.73	-
Philadelphia, Pa., divd.	gal.	.73	-
Providence, R.I., divd.	gal.	.73	-
Toluene di-isocyanate (mixed isomers), 80%, 2,4- and 20% 2,6- isomers, jumbo tankcars, divd.	lb.	1.01	-
p-Toluenesulfonamide, powd., dms., t.l., works	lb.	3.55	-
m-Toluidine, tech., bulk	lb.	3.10	-
o-Toluidine, tech., liq., dms. c.l.	lb.	.72	.75
bulk, same basis	lb.	.60	.64
p-Toluidine, tech. cast solid, dms., cl., works	lb.	1.80	1.85
Liq., tanks, same basis	lb.	1.70	-
flake, same basis	lb.	1.95	-
Toluidines, mixed, o-m-p, tech., liquid, c.l. f.o.b. works	lb.	1.03	-
bulk same basis	lb.	.95	-
Tolyltriazole, dms., 1,000-lb. lots, f.o.b. Cincinnati, Ohio	lb.	2.90	-
Tonka beans, Angostura, prime, 1,000-lb. lots	lb.	8.50	-
Toxaphene, dms., c.l., t.l., works	lb.	.38	-
Tragacanth gum, No. 1, ribbons, cns.	lb.	36.00	40.00
flaked powder	lb.	12.50	15.00
Triacetin tanks, divd. E	lb.	.75	-
Tributyl citrate, t.l., drums, f.o.b., works	lb.	1.70	-
Tributyl phosphate, tanks, works	lb.	1.65	1.77
Tributylamine, dms., c.l., divd.	lb.	1.39	-
tanks, same basis	lb.	1.33	-
Trichloroacetic acid, tech., 300-lb. dms., c.l., f.o.b., works	lb.	.94	-
USP, 100-lb. dms., frt. equald.	lb.	.99½	-
1,2,4-Trichlorobenzene, pure, tanks, divd.	lb.	.61½	-
1,1,1-Trichloroethane, tanks, consumers, divd.	lb.	.40½	-
1,1,2-Trichloroethane, tanks, f.o.b. works	lb.	.42	-
Trichloroethylene, tanks, divd.	lb.	.38½	-
Trichloroisocyanuric acid, dms.	lb.	1.25	-
Trichlorophenoxyacetic acid (see 2,4,5-T).			
Tricholine citrate, 65%, soln., non-ret. dms., 1,500-lb. lots, divd.	lb.	1.35	-
Tricresyl phosphate, tanks, f.o.b. works	lb.	1.60	1.76
Tridecyl alcohol, mixed isomers, tanks, divd.	lb.	.57	-
Triethanolamine, 85%, tanks, divd. E.	lb.	.45	.48
99%, tanks, same basis.	lb.	.45	.48
Triethanolamine lauryl sulfate, tanks, f.o.b. works	lb.	.27¼	.27½
Triethylamine, dms., c.l., divd.	lb.	1.33	-
tanks, same basis	lb.	1.20	-
Triethyl citrate, t.l., drums, f.o.b., works	lb.	1.82	-
Triethyl phosphate, tanks, divd.	lb.	1.15	-
Triethylene glycol, tanks, f.o.b. Gulf	lb.	.47	-
Triethylene glycol dipelargonate, tanks f.o.b. works	lb.	.29½	-
40-60% tanks, 100% basis, frt. equald.	lb.	.35	-
Triethylenetetramine tanks, frt. equald.	lb.	1.43	1.46
Tri-iso-tolyl trimellitate, f.o.b. works	lb.	.51	.55
Tri-isobutylene, tanks, divd.	lb.	.45	-
Tri-isopropanolamine, dms., c.l., frt. alld. E.	lb.	.57½	-
Trimethylamine, anhyd., tanks, frt. equald., 100%	lb.	.54½	-
25% soln., tanks, frt. equald., 100% basis	lb.	.63½	-
40% soln., tanks, frt. equald., 100% basis	lb.	.56½	.57
Trimethylolpropane bgs c.l. t.l. divd.	lb.	.73	-
Trimethylolpropane triacrylate, t.l. dms., f.o.b. works	lb.	1.50	-
Tripentaerythritol, tanks, frt. alld., E.	lb.	1.00	-
Triphenyl phosphate, dms., t.l., frt. equald.	lb.	1.64	.78
Tripropylene glycol tanks, frt. alld. E.	lb.	.64	-
Tris-(hydromethyl) nitromethane, solid, t.l. works	lb.	.605	-
Trisodium phosphate (see Sodium phosphate, tribasic)			
l-Tryptophan, dms, 25-kilo lots	kilo	62.00	65.00
Tung oil, tanks, imp. New York	lb.	.32	.34
Tungstic acid 92½%, dms., 1,750-6,000 lbs., works	lb.	12.85	-
Turmeric, Alleppey 5%	lb.	.65	-
Turmeric, Alleppey over 6%	lb.	.70	-
Turpentine, crude sulfate tanks, f.o.b. Southeast works	gal.	.70	.80

U

Ultramarine blue pigments, 550-2,000 lb.-lots, works	lb.	1.30	-
violet, same basis	lb.	2.20	-
Umber pigment, burnt, American, frt. equald.	lb.	.13½	.15½
raw, American, dom., bgs., l.c.l., same basis	lb.	.13½	.14¾
Undecylenic acid, dms., works	lb.	2.70	-
Urea, 46% N, ind., bulk, 50-ton c.l., divd.	ton	200.00	220.00
46% N, agricultural, bulk, divd. Mid-west	ton	200.00	215.00
46% N, agricultural, bulk, divd. West	ton	210.00	-
Uva-Ursi leaves, bls.	lb.	.22	-

V

Valerian root, Belgian, bgs.	lb.	.65	.85
Indian. bgs.	lb.	.45	-
Vanadium oxytrichloride, 3,000 lb. cyls., works	lb.	5.40	-
Vanadium pentoxide, tech., gran., per lb. of V_2O_5, 550-lb. dms., works.	lb.	4.10	4.94
fused or flake, per lb. V_2O_5, 550-lb. dms., works	lb.	3.35	3.65
Vandyke brown, bags., t.l., frt. equald.	lb.	.27¼	-
Vanilla beans, Madagascar	lb.	37.00	-
Java, tins	lb.	27.00	30.00
Vanillin, USP, dms., f.o.b works	lb.	6.25	-
Imp., dms.	lb.	4.75	5.00
Versinol Ag	lb.	.64	-
Vetiveryl acetate, dms.	kilo	60.50	-
extra	lb.	63.00	-
Vetiver oil, Bourbon, dms.	lb.	16.00	17.00
Haitian	lb.	28.00	-
Java	kilo	31.00	-
Victoria blue toners, molybdated, PMA dms.	lb.	6.20	6.30
tungstated, PTA, dms.	lb.	10.40	-
Vinyl acetate monomer, tanks, divd.	lb.	.39	-
Vinyl chloride monomer, polymer grade, tanks, f.o.b. works	lb.	.28	-
Vinyl ether, USP, anesthesia, 75-cc. bots., hospitals	bots.	1.56	-
2-Vinylpyridine t.l., dms. works.	kilo.	7.81	-
tanks, works	kilo.	7.61	-
Vinyltoluene, bulk, f.o.b.	lb.	.67	.73½
Vitamin A, synthetic, dry, pharm., 500,000 A units per gm., 50-kilo. lots.	kilo	33.00	-
Vitamin A, liq. in oil, pharm., 1,000,000 A units per gram, 10 kilo lots.	kilo	41.00	-
Vitamin A, feed grade, 650,000 units per gm.	kilo.	18.70	23.85
Vitamin B_1 (see Thiamine hydrochloride).			
Vitamin B_{12} (see Riboflavin and Yeast).			
Vitamin B_{12}, cryst., non-sterile, USP (cyanocobalamin), vials, 50-gram, lots.	gram	8.00	9.75
Vitamin B_{12} 1% trituration of cryst. B_{12} (cyanocobalamin USP) with dicalcium phosphate, 25-kilo dms.	kilo.	10.75	12.75
Vitamin B_{12}, 0.1% trituration of cryst. B_{12} (cyanocobalamin USP) with mannitol, 25-kilo. dms.	kilo.	15.80	-
Vitamin B_{12}, cobalamin concentrate NF with mannitol. 1,000 mcg. per gram, dms, ... per gram activity		19.45	-
Vitamin B_{12}, 1% Vitamin B_{12}, USP, absorbed on resin, 5-kilo dms., 500-gram lots, frt. alld. per gram activity		15.65	-
Vitamin B_{12}, 1% cobalamin concentrate, NF, absorbed on resin, 5-kilo dms., frt. alld. per gram activity.		15.40	-
Vitamin B_{12}, 1% cyanocobalamin in gelatin, 2.5-kilo dms., frt. alld. ...per gram activity		15.40	-
Vitamin C (see Ascorbic acid).			
Vitamin D (see Cholecalciferol)			
Vitamin D_2 (see Codliver and Fishliver oils).			
Vitamin E (see a-Tocopherol and Wheat germ oil).			
Vitamin H (see Biotin).			
Violet methyl toner (see Methyl violet toner)			

W

Warfarin 0.5%, dms., ton lots, frt. alld. New York or Chicago	lb.	.75	-
Wheat germ oil, cold-pressed,	gal.	16.50	17.50
cold-processed	gal.	14.00	-
White precipitate, USP, powd., 100-lb. dms., f.o.b. works	lb.	7.892	11.24
Whiting (see Calcium carbonate).			
Wintergreen oil, syn. (see Methyl salicylate).			
Witch hazel bark, bls.	lb.	1.35	-
leaves, bls	lb.	1.75	-
400 mesh, bgs., c.l. works	ton	134.00	-
325 mesh, bgs., c.l. works	ton	117.00	-
high aspect ratio, bgs., works	ton	164.00	-
Wollastonite, t.l., f.o.b., producing plant. general grade	ton	200.00	-
325 mesh	ton	140.00	141.00
400 mesh	ton	160.00	-
1250 mesh	ton	500.00	-
Wool grease, USP (see Lanolin).			
Wormseed oil (see Chenopodium oil, NF)			
Wormwood oil, cns.	lb.	31.00	36.00

X

Xanthan gum; food 300-lb. dms., f.o.b. works	lb.	5.65	6.20
ind., grade, same basis	lb.	4.54	-
Xylene, petroleum, ind. or nitration, tanks			
Alliance, La., f.o.b.	gal.	.80	-
Atlanta, Ga., divd	gal.	.80	-
Bayonne, N.J., divd.	gal.	.80	-
Bayonne, N.J. f.o.b.	gal.	.80	-
Baytown, Tex., f.o.b.	gal.	.80	-
Chicago, Ill., divd.	gal.	.80	-
Clairton, Pa	gal.	.80	-
Ft. Wayne, Ind., divd	gal.	.80	-
Gulf Coast, spot, barges	gal.	.80	-
Houston, Tex., divd.	gal	.75	.76
New Jersey Metro, divd	gal.	.80	-
Xylene, petroleum, ind. or nitration, tanks			
Philadelphia, Pa., divd.	gal.	1.36	-
Providence, R.I., divd.	gal.	1.42	-
South Bend, Ind., divd.	gal	1.37	-
m-Xylene, high purity, tanks, f.o.b Texas City, Tex	lb.	.36	-
o-Xylene, tanks, works	lb.	.125	.145
p-Xylene, tanks, divd	lb	.195	-
m-Xylenediamine, dms., t.l., f.o.b. works	lb	1.70	-
2,4-Xylidine, tech., liq., c.l., t.l. f.o.b works	lb.	1.50	-
Xylidines, mixed, o-m-p., dms., c.l., t.l., f.o.b. works	lb.	1.00	-

Y

Yara yara, 25-lb cns	lb.	2.81	-
Yeast, pure brewer's debittered, NF, Saccharomyces, t.l., f.o.b works	lb.	1.10	-
Yerba, santa leaves, bls.	lb.	2.40	-
extra, bots.	lb.	26.50	31.75
Ylang-ylang oil, extra grade	lb.	23.93	-
grade 1	lb.	19.09	-
grade 2	lb.	15.90	-
grade 3	lb.	13.04	-

Z

Zein, bgs., 2,000-lb. lots	lb.	7.50	9.30
Zinc acetate, NF, dms.	lb.	1.00	1.78
tech., dihydrate, bgs., t.l., works.	lb.	1.80	-
Zinc borate, tech., 43% ZnO, 37% B_2O_3, 50-lb. bgs., 20,000-lb. t.l., f.o.b. works	lb.	.56	-
cryst., 37% ZnO, 49% B_2O_3, 250-lb dms. 20,000 lbs. t.l. f.o.b wks.	lb.	.69	-
Zinc chloride, USP, gran., dms.	kilo	9.79	-
Zinc chloride, tech., soln. 50%, tanks, f.o.b. Cleveland, Ohio	100 lbs.	20.20	-
Concord, N.C.	100 lbs.	20.20	-
Freeport, Tex.	100 lbs.	20.20	-
Old Bridge, N.J.	100 lbs.	20 20	-
65 degree, same basis Cleveland, Ohio	100 lbs.	27.90	-
Concord, N.C.	100 lbs.	27.90	-
Old Bridge, N.J.	100 lbs.	27.90	-
70 degree, same basis Cleveland, Ohio	100 lbs.	29.70	-
Concord, NC	100 lbs.	29.70	-
Old Bridge, NJ	100 lbs.	29.70	-
72 degree, same basis Cleveland, Ohio	100 lbs.	33.20	-
Concord, NC	100 lbs.	33.20	-
Old Bridge, NJ	100 lbs.	33.20	-
Zinc chromate, bgs., divd.	lb.	1.12	-
Zinc cyanide, dms., c.l.	lb.	1.65	2.14
Zinc dust pigment type 1 & 2, dms., c.l., f.o.b. plant	lb.	.59	.67
Zinc ethylenediamine tetracetic acid, 8.4% Zn., ammonia salt soln., t.c., t.l., f.o.b. works	lb.	.58	-
9% Zn, ammonia salt soln., t.c., t.l., f.o.b. works	lb.	.48	-
Zinc fluoborate, liq. conc., dms., t.l., works, frt. equald.	lb.	.66	-
Zinc metal, high grade, divd.	lb.	.44	-
Zinc naphthenate, liq. 8% Zn, dms., divd	lb.	.95	-
Zinc nitrate, tech., flake 300-lb. dms.	lb.	.34	.38
Zinc oxide photo conductive, bgs., c.l., frt. alld.	lb.	.47¾	.56½
Zinc oxide, USP 50-lb. bxs., c.l., frt. alld.	lb.	.46½	.59½
Zinc oxide pigment, American process, lead-free bgs., c.l., frt. alld.	lb.	.40	.49
Zinc oxide pigment, French process regular, bgs., c.l., frt. alld.	lb.	.41	.51
Zinc phenolsulfonate, purif., gran., 250-lb. dms., t.l., frt. alld.	lb.	1.82	-
Zinc pyridinethione, 48% dispersion, dms., f.o.b. works	lb.	8.50	8.80
Industrial grade		14.60	-
Zinc resinate precip. 7.2-7.6% Zn, dms., frt. alld.	lb.	.45	-
Zinc silicofluoride, dms., c.l., t.l., works	lb.	.17	.2850
Zinc stearate, USP, bulk, t.l.	lb.	.92	1.46
Zinc sulfate, gran., monohydrate, indust. grade 36% Zn., bgs., c.l., works	100 lbs.	26.50	29.00
agricultural grade powd., bulk, same basis	100 lbs.	22.50	-
Zinc yellow (see Zinc chromate).			
Zinc-ammonium chloride, bgs., c.l., works	lb.	.42	-
Zinc undecylenate, dms., works	lb.	4.67	4.70
Zinc-formaldehyde sulfoxylate, basic 200-lb. dms., frt. alld.	lb.	1.05	-
Zircon gran. bgs., bulk c.l., works.	ton	165.00	177.00
Zircon milled bgs., 200 and 325 mesh, c.l., works	ton	225.00	-
Zirconium acetate soln., 25% ZrO_2, dms., c.l., 30,000 lbs. min., works	lb.	.97	-
22% ZrO_2, same basis	lb.	.78	-
Zirconium hydride, powd., electronic grade, dms., works	lb.	.31	.75
Zirconium oxide, powd., coml., dms., 2,000 lbs. min.	lb.	4.25	-
electronic, same basis	lb.	7.25	-
insulating, stabilized, 325°F same basis	lb.	3.31	3.82
insulating, unstabilized, 325°F same basis	lb.	8.65	3.75
dense, stabilized, 30F, same basis	lb.	2.82	-
Zirconium oxychloride, liq., ctns. 5-ton lots, works	lb.	.91	1.04

CHEMICAL IMPORTS

US imports of chemicals and related materials are reported in this section by CPI material. Listings include consignee where possible, container, net weight, name of vessel (in parenthesis), port of origin and date of shipment's arrival in New York or the Port of Newark.

US chemical imports/exports are tabulated monthly in the market reports.

A-B

ACETAMINOPHEN Votainer Consolidation Servi 20 dms (1279 lbs) (Hide) Hamburg, 8/24.

ACETYL CHLORIDE Marlborough 74 dms (30707 lbs) (Heide) Rotterdam, 8/24.

ACID CHROME BLACK T Golf & Pago 10 dms (628 lbs) (American Alabama) Hong Kong, 8/25.

ACRYLAMIDE Universal Transcontinental 480 bgs (26984 lbs) (Ming Sun) Kobe, 8/22.

ACTIVATED CALCIUM CARBONATE H M Royal 6760 pkg (344981 lbs) (American New Jers) Kobe, 8/23.
Degussa 800 bgs (26984 lbs) (Koln Express) Bremerhaven, 8/26.

AGAR AGAR Harold Pepper 40 dms (4850 lbs) (Ever Guest) Osaka, 8/18.
Janel Intl Fwdrs 50 sks (4440 lbs) (Koln Express) Hamburg, 8/26.

ALGINATE LV Protan 800 bgs (41411 lbs) (Atlantic Conveyor) Gothenburg, 8/25.

ALPHA PICOLINE 1 bks (1432776 lbs) (Lucor Manor) Rotterdam, 8/26.

ALUMINIUM OXIDE Norton Intl 700 pbx (39440 lbs) (Dart Atlantica) Bremerhaven, 8/26.

ALUMINUM HYDROXIDE Giulini 160 dms (75838 lbs) (Atlantic Song) Rotterdam, 8/25.

ALUMINUM NITRATE Charkit Chemical 5 dms (1290 lbs) (Ming Sun) Yokohama, 8/22.

AMMONIUM ACETATE 300 bgs (33400 lbs) (Heide) Rotterdam, 8/24.

AMMONIUM BIFLUORIDE Daniel F Young 1448 bgs (73996 lbs) (Zim Tokyo) Osaka, 8/19.

AMMONIUM CHLORIDE 20 plt (40635 lbs) (Koln Express) Greenock, 8/26.

AMYL BUTYRATE MDSI 1 dms (425 lbs) (Alexandra) Antwerp, 8/19.

ASCORBIC ACID 400 bxs (23968 lbs) (TFL Franklin) Bremerhaven, 8/21.
Rona Pearl 350 bxs (17354 lbs) (TFL Franklin) Bremerhaven, 8/21.

BARBITURIC ACID 75 dms (17857 lbs) (Ming Sun) Kobe, 8/22.

BARIUM CARBONATE Cometals 5440 ctn (303424 lbs) (American New Jers) Kobe, 8/23.

BARIUM HYDROXIDE Cometals 2720 bgs (151712 lbs) (American Alabama) Kobe, 8/25.
Container 4008 bgs (226448 lbs) (Saudi Riyadh) Leghorn, 8/20.

BARIUM SULFATE E Z Em 3360 bgs (189759 lbs) (Almudena) Genoa, 8/29.

BASIL Agricola 160 bgs (8618 lbs) (Alibrahimiya) Alexandria, 8/25.
George A Eldi 240 bgs (13228 lbs) (Alibrahimiya) Alexandria, 8/25.
Ludwig Mueller 500 bgs (27556 lbs) (Alibrahimiya) Alexandria, 8/25.

BELLADONNA E L Scott 3 crt (397 lbs) (Heogh Carrier) Bombay, 8/28.

BENZALDEHYDE Janel Intl Fwdrs 76 dms (36526 lbs) (Stuttgart Express) Rotterdam, 8/19.

BENZYL ALCOHOL CDF Chimie 1 con (41182 lbs) (Alexandra) LeHavre, 8/19.
Metacomat 76 dms (36526 lbs) (Koln Express) Antwerp, 8/26.
Chemical Dynamics 33 dms (14550 lbs) (Alexandra) Rotterdam, 8/19.
Penson 78 dms (37143 lbs) (Alexandra) Rotterdam, 8/19.
Chemical Dynamics 39 dms (17190 lbs) (Alexandra) Rotterdam, 8/19.

BETA NAPHTHOL 2 NAPHTHOL Oriex Chemical 600 bgs (33466 lbs) (Ming Sun) Kobe, 8/22.

BISHEXAMETHYLENETRIAMINE Traipak 1 tnk (41491 lbs) (Alexandra) Rotterdam, 8/19.

BISMUTH TRIBROMOPHENATE 4 dms (459 lbs) (Dart Atlantica) Felixstowe, 8/26.

BISPHENOL Dunlap Alpers & Mott 60 dms (32672 lbs) (Atlantic Conveyor) Liverpool, 8/25.

BRAZILIAN ORANGE OIL 250 dms (104167 lbs) (American Hawaii) Santos, 8/21.

BUTANEDIOL DIMETHACRYLATE Degussa 15 dms (7209 lbs) (TFL Franklin) Bremerhaven, 8/21.

BUTYL BENZOIC ACID 288 bgs (16191 lbs) (Dart Continent) LeHavre, 8/19.

BUTYL METHACRYLATE 1 tnk (39925 lbs) (Alexandra) Felixstowe, 8/19.

C-D

CAFFEINE ANHYDROUS Amalgamated Metal 200 pkg (13228 lbs) (George Washington) Kobe, 8/24.

CALCIUM FLUORIDE North American Philips Light 64 dms (16931 lbs) (Laust Maersk) Kobe, 8/21.

CALCIUM LACTOBIONATE Panalpina 40 dam (8470 lbs) (Dart Continent) LeHavre, 8/19.

CARBON GRAPHITE Gunze New York 38 mix (30926 lbs) (Ming Sun) Kobe, 8/22.

CARBOXYMETHYL CELLULOSE SAP Atlantic 1280 bgs (71112 lbs) (American Hawaii) Rio D Janeiro, 8/21.

CASSIA Daamhouwer 167 bgs (22119 lbs) (Hoegh Carrier) Padang, 8/28.
Daamhouwer 1368 bgs (179593 lbs) (Hoegh Carrier) Padang, 8/28.
A A Sayla 77 bgs (11193 lbs) (Hoegh Carrier) Padang, 8/28.
Rue Fwdg 321 bgs (44505 lbs) (Hoegh Carrier) Padang, 8/28.
Durkee Foods 250 bgs (33841 lbs) (Hoegh Carrier) Padang, 8/28.
Gel Spice 367 bgs (44209 lbs) (Hoegh Carrier) Padang, 8/28.
McCormick 186 bgs (22456 lbs) (Hoegh Carrier) Padang, 8/28.
Mincing Trdg 91 bgs (11303 lbs) (Hoegh Carrier) Padang, 8/28.
George Uhe 84 ctn (9187 lbs) (Hoegh Carrier) Padang, 8/28.
Louis Furth 225 ctn (11398 lbs) (Hoegh Carrier) Padang, 8/28.

CASSIA William E Martin 63 ctn (5926 lbs) (Hoegh Carrier) Padang, 8/28.

CAUSTIC SODA Contichem 1 bks (7754352 lbs) (Stolt Aquamarine) Antwerp, 8/22.

CELERY SEED Allari Brothers 510 bgs (67462 lbs) (Sea Land Express) Rotterdam, 8/21.
Malagasy Agencies 255 bgs (33731 lbs) (Sea Land Express) Rotterdam, 8/21.
William E Martin 185 bgs (24471 lbs) (Jebel Ali) Dubai, 8/25.

CHLORPORPAMIDE Silvey Shpg 166 dms (10631 lbs) (Carmen Carina) Rijeka, 8/20.

CHOLESTYRAMINE USP 12 dms (3031 lbs) (Almudena) Leghorn, 8/29.

CINNAMIC ALDEHYDE Intermar Steamship 36 dms (19561 lbs) (TFL Franklin) LeHavre, 8/21.

CITRIC ACID A J Murray 396 bgs (39967 lbs) (Vishva Prafulla) Genoa, 8/22.

COPPER CYANIDE 210 dms (40241 lbs) (Sea Land Express) Rotterdam, 8/21.

CORIANDER WHOLE Patel Brothers 5 bgs (452 lbs) (Heogh Carrier) Bombay, 8/28.

COUMARIN 270 dms (32024 lbs) (Laust Maersk) Hong Kong, 8/21.

CRESYLIC ACID Max Gruenhut 27 dms (13274 lbs) (Nedlloyd Rotterdam) Rotterdam, 8/26.

CRUDE IODINE 340 dms (39127 lbs) (Laust Maersk) Tokyo, 8/21.

CUMIN SEED Militzer & Muench 600 bgs (72752 lbs) (Koln Express) Hamburg, 8/26.

CYANURIC CHLORIDE Degussa 180 dms (43254 lbs) (Stuttgart Express) Antwerp, 8/19.

CYCLOPENTANONE Rhone Poulenc 10 dms (4850 lbs) (Dart Continent) LeHavre, 8/19.

DEHYDROCHOLIC ACID USP XXI Byron Chemical 11 dms (1312 lbs) (Almudena) Leghorn, 8/29.

DICHLORODIFLUOROMETHANE 2 con (71568 lbs) (Stuttgart Express) Greenock, 8/19.

DICYLOHEXYL CARBODIIMIDE Bristol Myers 41 cs (2738 lbs) (Laust Maersk) Tokyo, 8/21.

DIETHYL CARBAMAZINE CITRATE Aotex 25 dms (1351 lbs) (Laust Maersk) Hong Kong, 8/21.

DIETHYLE OXALATE Rhone Poulenc 72 dms (34603 lbs) (Nedlloyd Rouen) LeHavre, 8/18.

DIETHYLETHANOLAMINE 1 tnk (40388 lbs) (Nedlloyd Rotterdam) Bremerhaven, 8/26.

DIISOCYANATE HEXAMETHYLENE Prochimie Intl 1 tnk (38536 lbs (Stuttgart Express) Greenock, 8/19.

DILL WEED Ludwig Mueller 180 bgs (9921 lbs) (Alibrahimiya) Alexandria, 8/25.

DIMETHYLANILINE 1 tnk (40080 lbs) (Stuttgart Express) Greenock, 8/19.
1 tnk (38845 lbs) (Nedlloyd Rouen) Bremerhaven, 8/18.

DIPHENYL OXIDE 50 dms (24526 lbsa) (American New Jers) Kobe, 8/23.

DIPHENYLAMINE 1 tnk (39771 lbs) (Koln Express) Greenock, 8/26.

DUNDICUT CHILLIES John H Elton 600 bgs (33202 lbs) (American Alabama) Khor Fakkan, 8/25.
Louis Furth 600 bgs (33202 lbs) (American Alabama) Khor Fakkan, 8/25.
Mincing Trdg 600 bgs (33202 lbs) (American Alabama) Khor Fakkan, 8/25.
Morris J Golombeck 1200 bgs (66850 lbs) (American Alabama) Khor Fakkan, 8/25.
Quality Spice 600 bgs (33202 lbs) (American Alabama) Khor Fakkan, 8/25.

E-I

EPOXY RESIN H & C Ind 72 dms (39334 lbs) (Ever Guest) Keelung, 8/18.

ETHANOL AND SOLUTION Star Liquor Imports 2 tnk (76637 lbs) (Koln Express) Greenock, 8/26.

ETHYL HEXANOIC ACID 1 tnk (40521 lbs) (Alexandra) Rotterdam, 8/19.

ETHYLENE VINYL CHLORIDE COPOLYME Toyo Soda 766 bgs (42752 lbs) (Ever Guest) Tokyo, 8/18.

FENNEL SEEDS Agricola 820 bgs (47840 lbs) (Alibrahimiya) Alexandria, 8/25.
Griffith Laboratories 187 bgs (24324 lbs) (Jebel Ali) Dubai, 8/25.
186 bgs (24603 lbs) (Hoegh Carrier) Bombay, 8/28.
Patel Brothers 5 bgs (562 lbs) (Heogh Carrier) Bombay, 8/28.

FENUGREEK LEAVES Patel Brothers 2 ctn (26 lbs) (Hoegh Carrier) Bombay, 8/28.

FLUOROBENZENE 50 dms (24471 lbs) (Koln Express) Bremerhaven, 8/26.

GAMMA ACID DRY Ciba Geigy 152 dms (36191 lbs) (Stuttgart Express) Hamburg, 8/19.

GELATIN Kuehne & Nagel 100 dms (10701 bs) (Stuttgart Express) Greenock, 8/19.
Olympic Adhesive 680 bgs (38228 lbs) (Laus Maersk) Hong Kong, 8/21.

GERANIOL J Manheimer 10 dms (4233 lbs) (Ming Sun) Yokohama, 8/22.

GLUCONATE Berlex Laboratories 69 dms (5015 lbs) (Stuttgart Express) Hamburg, 8/19.

GLYCERINE Helm New York Chemical 1 bks (624915 lbs) (Lucor Manor) Rotterdam, 8/26.

GLYOXYLIC ACID 68 dms (40476 lbs) (Dart Continent) LeHavre, 8/19.

GUAR GUM Celanese 762 bgs (36773 lbs) (Jebel Ali) Dubai, 8/25.
Polyprp Intl 1590 bgs (80906 lbs) (Jebel Ali) Dubai, 8/25.
Tic Gums 760 bgs (38686 lbs) (Jebel Ali) Dubai, 8/25.
Colony Imports & Exports 800 bgs (40618 lbs) (Jebel Ali) Dubai, 8/25.

GUM KARAYA Celanese 200 bgs (35891 lbs) (Jebel Ali) Dubai, 8/25.
Colony Imports & Exports 213 bgs (36063 lbs) (Hoegh Carrier) Bombay, 8/28.

GUM OLIBANUM PEA SIZE Max Van Pels 20 cs (8704 lbs) (Heogh Carrier) Bombay, 8/28.
Tear Size Max Van Pels 30 cs (3704 lbs) (Hoegh Carrier) Bombay, 8/28.

HYDROFLUORIC ACID BDP Intl 136 dms (73458 lbs) (Zim Tokyo) Osaka, 8/19.
Daniel F Young 68 dms (36654 lbs) (Zim Tokyo) Osaka, 8/19.

IRON SULFATE 19 ctn (895 lbs) (Stuttgart Express) Bremerhaven, 8/19.

ISOPHYTOL 1 tnk (35715 lbs) (Atlantic Song) Rotterdam, 8/25.

J-M

J ACID Pneson 280 dms (35186 lbs) (American New Jers) Kobe, 8/23.

LEMON OIL Citrus & Allied Essences 10 dms (4422 lbs) (Holstensailor) Buenos Aires, 8/19.

LITHOPONE Ore & Chemical 700 bgs (39700 lbs) (Nedlloyd Rotterda) Antwerp, 8/26.

MAGNESIUM CARBONATE George Uhe 55 bgs (26109 lbs) Heide) Hamburg, 8/24.

MAGNESIUM HYDROXIDE USP Roussel 800 bgs (46914 lbs) (Ming Sun) Kobe, 8/22.

MAGNESIUM OXIDE Desmo Chemical 680 bgs (36228 lbs) (Ming Sun) Kobe, 8/22.
USP Led Roussel 331 dms (39405 lbs) (Ming Sun) Kobe, 8/22.

MALABAR BLACK PEPPER A Kazemi 216 bgs (3497 lbs) (American Alabama) Singapore, 8/25.
DMT 430 bgs (67676 lbs) (American Alabama) Singapore, 8/25.
Gel Spice 643 bgs (101496 lbs) (American Alabama) Singapore, 8/25.
John S Connor 214 bgs (33628 lbs) (American Alabama) Singapore, 8/25.

MANDARIN OIL John D Walsh 4 dms (948 lbs) (Zim Haifa) Barcelona, 8/16.

MANGANESE DIOXIDE ORE Lassen Intl Fwdrs 1 cs (375 lbs) (Koln Express) Bremerhaven, 8/26.

MENTHOL CRYSTALS Berje 40 dms (2557 lbs) (Stuttgart Express) Hamburg, 8/19.

MERCURIC IODIDE RED ACS Troy Chemical 10 dms (1175 lbs) (Hoegh Carrier) Bombay, 8/28.

METHALLYL CHLORIDE Stolt Tank Containers 3 tnk (107166 lbs) (Ming Sun) Kobe, 8/22.

METHYL BUTYRATE C 133 Containership Agency 3 dms (2224 lbs) (Alexandra) Felixstowe, 8/19.

METHYL CELLULOSE Mitrans 300 bgs (13968 lbs) (Hanjin Yokohama) Yokohama, 8/25.
365 dms (44952 lbs) (Hanjin Yokohama) Yokohama, 8/25.

METHYL HEPTENONE 80 dms (33683 lbs) (Ming Sun) Yokohama, 8/22.

METHYL ISOPROPYL KETONE Pan American Container 4 dms (1631 lbs) (Heide) Rotterdam, 8/24.

METHYL PARABEN Kanematsu Gosho 660 dms (42660 lbs) (Hanjin Yokohama) Kobe, 8/25.

METHYL SALICYLATE Exim Line 958 ctn (36076 lbs) (Hanjin Yokohama) Keelung, 8/25.

METHYL METHACRYLATE Degussa 1 con (40719 lbs) (Koln Exprekss) Bremerhaven, 8/26.

METHYL METHACRYLATE BUTADIENE STYRENE M & T Chemicals 350 bgs (15642 lbs0 (George Washington) Tokyo, 8/24.
2152 pkg (97223 lbs) (George Washington) Tokyo, 8/24.

MINT LEAVES Patel Brothers 2 ctn (25 lbs) (Hoegh Carrier) Bombay, 8/28.

MONOBUTYL META CRESOL Stolt Tank Containers 1 tnk (35163 lbs) (Ming Sun) Kobe, 8/22.

MONOSODIUM GLUTAMATE Ajinomoto 3900 bgs (223480 lbs) (Bislig Bay) Santos, 8/22.
730 dms (78001 lbs) (Bislig Bay) Santos, 8/22.

MUNTOK WHITE PEPPER Central Indonesia Trdg 240 bgs (44092 lbs) (Saudi Riyadh) Singapore, 8/20.
DMT 120 bgs (22046 lbs) (Saudi Riyadh) Singapore, 8/20.
Gel Spice 1221 bgs (220460 lbs) (Saudi Riyadh) Singapore, 8/20.
Jantzen & Deeke 300 bgs (55115 lbs) (Saudi Riyadh) Singapore, 8/20.
Ludwig Mueller 120 bsg (22046 lbs) (Saudi Riyadh) Singapore, 8/20.
Morris J Golombeck 180 bgs (33069 lbs) (Saudi Riyadh) Singapore, 8/20.

MUSK KETONE 60 dms (7196 lbs) (George Washington) Tokyo, 8/24.

MUSK XYLENE 100 pkg (11618 lbs) (Koln Express) Greenock, 8/26.

N-O

N BUTHYLMETHACRYLATE Beemeoth Kerner 1 tnk (40300 lbs) (Nedlloyd Rotterda) Rotterdam, 8/26.
Degussa 1 con (38625 lbs) (Stuttgart Express) Bremerhaven, 8/19.
1 lot (39154 lbs) (Nedlloyd Rouen) Rotterdam, 8/18.

NAPHTHOL Top Tex 20 hob (2478 lbs) (Stuttgart Express) Bremerhaven, 8/19.

NICOTINE SULFATE Black Leaf Products 25 dms (12236 lbs) (Jebel Ali) Dubai, 8/25.

NICOTINAMIDE Vitachem Reilly Tar 800 bgs (44621 lbs) (Stuttgart Express) Antwerp, 8/19.
Vitachem Reilly Tar 1,200 bgs (60,336 lbs) (Koln Express) Antwerp, 8/26.

NIGROSINE Penson 240 dms (14,974 lbs) (Laust Maersk) Hong Kong, 8/21.
60 dms (7,302 lbs) (Hoegh Carrier) Colombo, 8/28.

OXALIC ACID All Freight Intl 728 bgs (41,887 lbs) (Hanjin Yokohama) Keelung, 8/25.

P-R

PALM KERNEL OIL 2 bks (3,308,060 lbs) (Stolt Aquamarine) Belawan Deli, 8/22.
1 bks (1,124,346 lbs) (Stolt Aquamarine) Pasir Gudang, 8/22.
4 bks (4,440,578 lbs) (Stolt Aquamarine) Pt Kelang, 8/22.

PAPRIKA Griffith Laboratories 850 bgs (43,287 lbs) (Jebel Ali) Valencia, 8/25.

PAPRIKA OLEORESIN Kemin Ind 4 dms (1,967 lbs) (Almudena) Valencia, 8/29.

PARAFFIN PETROLEUM WAX Dura Commodits 720 bgs (40,873 lbs) (Dart Atlantica) Felixsowe, 8/26.

PARAFFIN WAX Panalpina 82 ctn (76,102 lbs) (George Washington) Kobe, 8/24.

PENTAERYTHRITOL Degussa 500 bgs (22,266 lbs) (Stuttgart Express) Bremerhaven, 8/19.
881 bgs (44,436 lbs) (Koln Express) Bremerhaven, 8/26.
Degussa 881 bgs (44,436 lbs) (Koln Express) Bremerhaven, 8/26.

PERI ACID Leyden Customs Expediters 100 pkg (13,448 lbs) (George Washington) Kobe, 8/24.

PHENYLPROPANOL Chemical Dynamics 8 dms (2,846 lbs) (Alexandra) Rotterdam, 8/19.

POLYETHYLENE Mensen Marine Supply 700 ctn (37,395 lbs) (Zim Tokyo) Osaka, 8/19.

POLYTETRAFLUOROTHYLENE Sumitomo of America 180 dms (19,753 lbs) (Laust Maersk) Kobe, 8/21.

POLYTETRAHYDROFURAN 1 tnk (40,829 lbs) (Nedlloyd Rouen) Bremerhaven, 8/18.
1 tnk (39,903 lbs) (Nedlloyd Rotterda) Bremerhaven, 8/26.

POLYVINYL CHLORIDE Morton (Nedlloyd Rotterda) Antwerp, 8/26.

POTTASIUM CHLORATE Alltransport 10 dms (2,... (Atlantic Song) Le Havre, 8/25.

POTASSIUM PERMANGANATE American Intl Chemical 360 dms (43,255 lbs) (Sea Land Express) Rotterdam, 8/21.

POTASSIUM SORBATE Kanematsu Gosho 400 dms (41,601 lbs) (Hanjin Yokohama) Kobe, 8/25.
390 dms (42,320 lbs) (Stuttgart Express) Rotterdam, 8/19.

PROPENYL CYANOACETATE Bemo Shpg 5 dms (2,480 lbs) (Ming Sun) Kobe, 8/22.

PROPYL PARABEN Kanematsu Gosho 195 dms (22,231 lbs) (Hanjin Yokohama) Kobe, 8/25.

QUININE Pan American Container 40 dms (1,213 lbs) (American Alabama) Singapore, 8/25.

RARE EARTH CHLORIDE Nissho Iwai American 500 dms (205,974 lbs) (American New Jers) Kobe, 8/23.

S-T

SACCHARIN SODIUM Silvey Shpg 320 pkg (38,096 lbs) (George Washington) Kobe, 8/24.

SESAME OIL House of Lawrence 650 ctn (27,227 lbs) (Zim Tokyo) Yokohama, 8/19.
Sun Lee Trdg 970 ctn (39,562 lbs) (American Alabama) Hong Kong, 8/25.

SILICONE 1 tnk (39,793 lbs) (Heide) Rotterdam, 8/24.

SODIUM ALGINATE Kelco 800 sks (41,760 lbs) (Stuttgart Express) Greenock, 8/19.

SODIUM BICHROMATE Alpha Intl 360 bgs (44,727 lbs) (Bakkafoss) Rotterdam, 8/24.

SODIUM BROMATE Ameribrom 376 dms (78,748 lbs) (Zim Haifa) Haifa, 8/16.

SODIUM CHLORITE Selwo Sussan America 260 dms (32,099 lbs) (Zim Tokyo) Yokohama, 8/19.

SODIUM ERYTHORBATE Pmp Fermentation Products 320 dms (38,095 lbs) (Ming Sun) Kobe, 8/22.
Pmp Fermentation Products 701 mix (76,812 lbs) (Ming Sun) Kobe, 8/22.

SODIUM FERROCYANIDE Degussa 880 mix (106,996 lbs) (Stuttgart Express) Antwerp, 8/19.

SODIUM FLUORIDE Trans World Shpg 700 bgs (38,973 lbs) (Ever Guest) Osaka, 8/18.

SODIUM HEXAMETAPHOSPHATE 16 bbg (35,466 lbs) (American New Jers) Kobe, 8/23.

SODIUM HYDROSULFITE Acetocorp 160 dms (42,240 lbs) (Ming Sun) Keelung, 8/22.
Ferro Metal & Chemical 161 dms (42,417 lbs) (Bakkafoss) Rotterdam, 8/24.

SODIUM LAURYL SULFATE Continental Chemical 875 bgs (40,036 lbs) (Ever Guest) Keelung, 8/18.
Continental Chemicals 800 bgs (44,797 lbs) (Heide) Rotterdam, 8/24.

SODIUM METABISULPHITE Rhenus Transport Intl 16 ptl (43,953 lbs) (Zim Haifa) Barcelona, 8/16.

SODIUM METAPERIODATE F W Myers 10 crt (2,456 lbs) (Dart Content) Felixstowe, 8/19.
15 mix (1,698 lbs) (Dart Atlantica) Felixstowe, 8/26.

SODIUM METASILICATE Browining Chemical 400 bgs (44,092 lbs) (Saudi Riyadh) Leghorn, 8/20.

SODIUM SACCHARIN Globe Shpg 20 dms (2,205 lbs) (Hanjin Yokohama) Kobe, 8/25.
450 dms (47,399 lbs) (Ming Sun) Busan, 8/22.

SODIUM TRIPOLYPHOSPHATE 780 bgs (44,643 lbs) (Zim Haifa) Haifa, 8/16.
580 bbg (867,906 lbs) (Nedlloyd Rouen) Antwerp, 8/18.

STRYCHNINE SULFATE H R Harkins 10 bxs (485 lbs) (Hoegh Carrier) Colombo, 8/28.

STYRCHNINE ALKALOID H R Harkins 60 bgs (2,910 lbs) (Hoegh Carrier) Colombo, 8/28.

SULFAMETHAZINE 40 dms (4,694 lbs) (Carmen Carina) Rijeka, 8/20.

SULFAMETHOXAZOLE Shionogi 51 dms (6,184 lbs) (Laust Maersk) Kobe, 8/21.

SULFAMIC ACID American Intl Chemical 900 bgs (45,269 lbs) (Ming Sun) Keelung, 8/22.
Hudson Shpg 880 bgs (4,409 lbs) (Ever Guest) Kaohsiung, 8/18.
900 bgs (45,450 lbs) (Ever Guest) Kaohsiung, 8/18.

SULFAQUINOXALINE Universal Transcontinental 100 dms (12,787 lbs) (Heide) Rotterdam, 8/24.

TARTARIC ACID Tartaric 440 bgs (44,974 lbs) (Almudena) Leghorn, 8/29.

TERPENYL ACETATE America Chemicals 90 dms (43,849 lbs) (Jebel Ali) Fos, 8/25.

TETRAFLUOROETHYLENE & HEXAFLUOROP Sumitomo of America 840 dms (101,853 lbs) (Laust Maersk) Tokyo, 8/21.
120 dms (7,407 lbs) (Ming Sun) Kobe, 8/22.

THYME LEAVES E L Scott 240 sks (29,101 lbs) (Almudena) Valencia, 8/29.
Herbert Mamorek & Sons 293 bgs (32,297 lbs) (Almudena) Valenica, 8/29.

TIN OXIDE Alba Fwdg 125 dms (34,722 lbs) (Ming Sun) Yokohama, 8/22.

TITANIUM DIOXIDE Blue Bell Chemical 1,600 bgs (63,004 lbs) (Sea Lad Express) Rotterdam, 8/21.
N L Ind 4,00 bgs (207,455 lbs) (Sea Land Express) Rotterdam, 8/21.
Scm 1,600 bgs (91,095 lbs) (Sea Land Express) Rotterdam, 8/21.
Rhone Poulenc 2,400 bgs (120,107 lbs) (Nedlloyd Rotterda) Le Havre, 8/26.
4,000 bgs (230,160 lbs) (Nedlloyd Rouen) Le Havre, 8/18.
N L Ind 8,100 bgs (416,074 lbs) (Nedlloyd Rouen) Antwerp, 8/18.

TOLUENE DI-ISOCYANTE Klockner Chemical 226 dms (137,223 lbs) (Holstensailor) Buenos Aires, 8/19.
Laschaco 2 tnk (80,071 lbs) (Atlantic Song) Bremerhaven, 8/25.

TRIETHYLAMINE IMCO 1 tnk (38,140 lbs) (Heide) Rotterdam, 8/24.

TRIMETHYLOLPROPANE Laschaco 1 tnk (40,432 lbs) (Stuttgart Express) Rotterdam, 8/19.

TRIPENYL PHOSPHATE 1,280 bgs (73,545 lbs) (Atlantic Conveyor) Liverpool, 8/25.

TRISODIUM PHOSPHATE Rhone Pulenc 340 bgs (38,977 lbs) (Nedlloyd Rouen) Le Havre, 8/18.

TURMERIC OLEORESIN Meer 80 pkg (7,280 lbs) (Vishva Prafulla) Algeciras, 8/22.

U-Z

ULTRAMARINE BLUE Hilton Davis 400 bgs (22,597 lbs) (Tfl Franklin) Rotterdam, 8/21.
Smith Chemical 400 bgs (22,597 lbs) (Tfl Franklin) Rotterdam, 8/21.

ULTRAMARINE PIGMENT Whittaker Clark & Daniels 720 bgs (41,310 lbs) (Atlantic Conveyor) Liverpool, 8/25.

UREA FORMALDEHYDE 754 dms (55,197 lbs) (Zim Haifa) Haifa, 8/16.

UREA MOULDING COMPOUND 41 pkg (45,194 lbs) (Zim Haifa) Haifa, 8/16.

ZINC CHLORIDE 800 bgs (45,732 lbs) (Bakkafoss) Rotterdam, 8/24.

ZINC PYRITHIONE 172 dms (43,889 lbs) (Alexandra) Bremen, 8/19.

ZIRCONIUM OXIDE Magnesium, Elektron 180 dms (40,873 lbs) (Koln Express) Greenock, 8/26.

CENTRIFUGES
[illegible]arples, 316 S/S RECONDITIONED
[illegible] Sharples, 316 S/S, (5)
P3000 Sharples, 316 S/S, RECONDITIONED
P660 Sharples, 316 S/S (2)
40"x 60" Bird, 304 S/S, reconditioned by mfr.
6" Bird OBS, 316 S/S
NX207 Alfa-Laval, 316 S/S Flex Drive
BRPX-213 Alfa-Laval, 316 S/S construction
SAOWH-3036 West Falia, sant., S/S
SA-1-02-175 West Falia, Pilot Plant 3 way S/S
48" Sharples "Tornadomatic" 316 S/S (2)
48" Tolhurst, "Batch Master", S/S (2)
48" Sharples "Sludge-Pak" Model SP-6500, 316 S/S
48" Western States, "Sludge-A-Tron", 316 S/S, (3)
32" Baker-Perkins, pusher design, 316 S/S
26" AT&M suspended centrifuge, 304 S/S 5 H.P.
12" Krauss-Maffei, pusher designed, 316 S/S
8" Baker Perkins Pusher Design, 316 S/S
SB600 Alfa-Laval pusher design, 316 S/S

SZEGVARI ATTRITOR
60 gal. Szegvari, jacketed, stainless steel

PRESSURE FILTERS
480 sq. ft. Durco-Enzinger, Model 60DHC489, 316SS
370 sq. ft. Niagara Model 370-348, 304SS
322.8 sq. ft. Funda Model R-30, 316 S/S, jktd., 40 HP
76 sq. ft. Niagara, model 33-12-5, S/S jktd. (2)
314 sq. ft. Niagara, Model 42-310-22, 304 S/S
259 sq. ft. Pronto, Model 3259, S/S (2)
160 sq. ft. Sparkler, Model 33S30, S/S (2)

VACUUM FILTERS
8'x16' Ametek, 316 ELC S/S LIKE NEW CONDITION
6'x8' Eimco, precoat "Eimcomet" construction (3)
6'x8' Ametek, polypropylene
5'x7' Paxman, 316 S/S, precoat
18"x12" Eimco, 316 S/S, precoat

REACTORS-TANKS
S/S, G/L Reactors, up to 5000 gal. capacity,
Tanks up to 15,000 gal. capacity (100's in stock)
(S/S, G/L, C/S, FRP)

HORIZONTAL BELT FILTERS
8'x18' Eimco, *rubber belt, vacuum* (2)
4'x12' Eimco, rubber belt, vacuum (2)
2'x10' Straightline, rubber belt, complete
2'x7' Straightline, rubber belt, complete
1'x3' Eimco, rubber belt, complete

BELT FLAKERS
30"x20' Sandvik, S/S belt flaker, complete
20"x32' Sandvik, S/S, complete system

FITZ CHILSONATOR
Size 16 x 30 Fitzpatrick Chilsonator System, all S/S construction, with size 30 granulator, with drives

BALL/PEBBLE MILLS
5'x6' Patterson Jacketed Steel Ball Mill, 30 H.P.
3'x4' Patterson Pebble Mill, aricite lined

SAND MILLS
30 RS Premier, Sussmeyer Sand Mill, complete
12–30 Morehouse–Cowles Sand Mill, 50 H.P.
10–25 Morehouse–Cowles Sand Mills, 25 H.P. (2)
16–P Chicago Boiler "Red Head" 30 H.P.
Lab Chicago Boiler "Red Head," 1 H.P.

LAB 3 ROLL MILLS
5"x12" J.H. Day, high speed, complete
4½"x10" Ross, high speed, complete
4"x8" Kent, high speed, complete

ALL NICKLE CONSTRUCTION
500 gal. Nooter Reactors, 30/50 PSI (2)
500 sq. ft. U.S. Autojet Pressure Filter
107 sq. ft. Sparkler Pressure Filter, Model 33-S-19
5'x3' Ametek Rotary Vacuum Filter

JUST PURCHASED
7500 gal. Terre Haute Fermenters, 304 S/S, 50 psi (5)
4000 gal. horizontal batch still, S/S
2500 gal. Hicks tanks, 316L S/S, 50 psi or F/V
2000 gal. Nooter reactors, 316L S/S, 60/90 psi (8)
2000 gal. Pfaudler reactor, 316L S/S, 60/90 psi
2000 gal. Mueller reactor, 316L S/S, 60/90 psi
2000 gal. horizontal batch still, S/S (2)
1250 gal. S/S Mix Tanks, 10 HP Vari-Drive (2)
Misc. G/L tanks and kettles, to 3000 gal. (8)
ST 100 Aeromatic Fluid Bed Dryer, all S/S

MAJOR NEW PURCHASE
(84) NASH CL (WATER SEAL) VACUUM PUMPS
63 Model CL703 Pumps, 700 CFM to 3" Hg Absolute 60 H.P. Direct Coupled Drive, mounted on base
18 Model CL702 Pumps, 700 CFM to 6" Hg Absolute
2 Model CL2002 Pumps, 2000 CFM to 6" Hg
Also available (4) Model H-6, (4) Model H-4, (4) Model L-7, complete with drives
ALL PUMPS IN LIKE NEW CONDITION

RESIN MFG. EQUIPMENT–OHIO LOCATION
5000 gal. Struthers-Wells Reactor System, 347 S/S, 50 PSI or full vacuum internal, 75 PSI jacketed, 700°F, turbine agitator, with condensor, receiver, piping, controls
15,000 gal. Stainless Steel Tank, vertical, with internal coils, top entering 40 H.P. turbine agitator
200 gal. Baker-Perkins Mixers, size 17GIM, type 304 stainless steel construction, fully jacketed, duplex dispersion blades, screw tilt, 40 H.P. (5)
35 gal. Patterson "Kneadermaster" Mixers, 304 stainless steel, sigma blades, jacketed, 40 H.P. (5)
100 H.P. Sprout-Waldron Hammermills, Model CG-26 (5)
28" dia. Reitz Thermascrews, 304 S/S, jacketed trough 28' long, 15 H.P. varidrive (2)
40"x84" Patterson Screens, 1 deck, S/S (9)
IMMEDIATE AVAILABILITY–CALL FOR DETAIL!

NEW LIQUIDATION
PVC Suspension Plant — Ohio Location
11–5,000 gal. Pfaudler Reactors, C/S construction, rated 220 PSI internal, 80 PSI jacket, 50/25 H.P. Philadelphia Gear Drive
Complete Nara Vertical Fluid Bed Dryer System, all S/S, 6'7" x 22'1", 2 stage, rated up to 10,000 #/hr., with heaters, blowers, cyclones
Complete Proctor Vertical Flash Dryer System, all S/S, 3'1" x 117'2", with heater, blower cyclones
20,000 gal. Stainless Steel Mix Tanks, 13'6"x19', 20 H.P. (2)
16,000 gal. Stainless Steel Mix Tank, 12'x18'4", 10 H.P. (1)
15,000 gal. Stainless Steel Mix Tank, 9'6"x27'6" 40 H.P. (1)
8,500 gal. Stainless Steel Tank, 9'6"x15'2" (1)
8,000 gal. Glascote Vacuum Receiver, Glass-Lined (1)
6,500 gal. Glascote Vacuum Receiver, Glass-Lined (1)
2,250 gal. Stainless Steel Kettles, 6'8"x8', jacketed, 10 H.P. (1)
2,250 gal. Stainless Steel Kettles, 6'8"x 8', jacketed, 3 H.P. (2)
2,000 gal. Stainless Steel Mix Tanks, 6'x8'4", 2 H.P. (3)
1,000 gal. Stainless Steel Kettles, 5'4"x6', jacketed, 2 H.P.
1,000 gal. Stainless Steel Jacketed Tanks, 5'4"x6' (2)
4–A.O. Smith Silos, Glass-Lined, 14'x40', bolted
1–Butler, Epoxy-Lined, 9'x32' welded
220 CFM Sullaire Compressor, 125 PSI, rotary screw design
117 sq. ft. Mikro Pulsair Collector, Model 25S-8-30, S/S Derrick Screen, single deck, 3'x5'
Misc. tanks, feeders, blowers, cyclones, pumps

REACTORS
5000 gal. Struthers-Wells, 347 S/S, 50#/75#
3300 gal. Acme, 304 SS, 74#/76# (2)
2750 gal. Acme, 304 S/S, 74#/36# (2)
2000 Colonial, 316 S/S, 100#/100#, w/coil
2500 gal. Cryochem, 316 S/S, 75#/75#, with coil
1600 gal. Perry Products, 316 S/S, 75#/150#
750 gal. Pfaudler, Glass-Lined, 100#/90#
200 gal. Pfaudler, 316 S/S, 55#/60# UNUSED
50 gal. Pfaudler, Glass-Lined, 25#/90# complete system, with receiver & condenser
30 gal. Pfaudler, 316 S/S, 60#/90# UNUSED
30 gal. Pfaudler, Glass-Lined, 25#/90#
10 gal. Pfaudler, Glass-Lined, 150#/85#
5 gal. Pfaudler, 316 S/S, 50#/80#

S/S PULVERIZERS
60 ACM Mikro Mill, 75 H.P.
PC-38 Strong-Scott Pulvacon, 150 H.P.
FASO-20 Fitzpatrick "Fitzmill", 75 H.P. (1)
D-6 Fitzpatrick "Fitzmill", 7½ H.P. (2)
Manesty "Rotogran" Oscillating Granulator

SPECIAL OFFERING
33' dia. Niro Spray Dryers, 316 S/S, UNUSED (2) complete spray drying facility, never installed, including (2) 33' dia. chamber, Model F-350 centrifugal atomizers. All equipment new 1978, as shipped from Niro awaiting installation.

10' dia Niro Fluid Bed Dryer, 304 S/S, UNUSED, complete system with drying chamber, heating-cooling systems, feed tanks, cyclone collectors, all piping.

VACUUM DRYERS
375 cu. ft. Stehning, Double Cone, S/S (9)
175 cu. ft. Venuleth, Double Cone, S/S (3)
60 cu. ft. DeDeitrich, Double Cone glass lined
50 cu. ft.F.J. Stokes Double Cone, 304 S/S
40 cu. ft. F.J. Stokes, Rotary, Vacuum, 30"x8', S/S
21 cu. ft. Balfour, Double Cone, glas lined
20"x10' Zimmer dble. screw Holoflites, S/S jktd.,vac. (3)

MIXERS
50 gal. B-P, C/S, Sigma jacketed vac., 30 H.P.
¾ gal. J.H.Day "Titan," Sigma jacketed, 3 H.P.
70 cu. ft. fJ.H.Day, Nauta, S/S, jacketed, UNUSED
200 gal. B-P, C/S, sigma, jacketed, vac., 75 H.P. (3)
75 liter Papenmeir Mixer, S/S, jacketed, 30 H.P. varidrive
8 cu. ft. Kelley Duplex, paddle, S/S, NEW
3.5 cu. ft. J.H. Day, Nauta, S/S

DISPERSERS
50 H.P. Cowles, vari speed. Like New

LAB 2 ROLL MILLS
8"x16" Reliable Lab Mill, 15 H.P., Like New
8"x16" Farrel Lab Mill, electrically heated, variable speed, variable friction
6"x13" Farrell Lab Mill, 10 HP drive
3"x7" Farrell Lab Mill, oil heated, variable speed

LITTLEFORD MIXERS
FKM 600 D, 13 cu. ft. stainless steel, w choppers (2)
KM 300 D, 6 cu. ft. stainless steel
FM 50, 1 cu. ft. stainless steel, jktd., vac., chopper, 5 H.P., vari drive, All XP. New Condition.
FKM 8000 D, 169 cu. ft., carbon steel, 4choppers
FKM 8000 D, 169 cu. ft., carbon steel
KM 4200 D, 86 cu. ft., jacketed, stainless steel
FKM 3000 D, 65 cu. ft., jacketed, stainless steel
KM 2000 D, 43 cu. ft., jacketed, stainless steel

S/S RIBBON BLENDERS
80 cu. ft. J.H. Day Sanitary S/S (2)
40 cu. ft. J.H. Day Sanitary S/S

ROSS PLANETARY MIXERS
40 gal. Ross, HDM-40, S/S, jacketed, vacuum, 10 H.P. varidrive (2)
25 gal. Ross, HDM-25, S/S, 15 H.P. varidrive
2 gal. Ross, 130-ELS, S/S, jacketed, vacuum, ¾ H.P. varidrives

ARTISAN EVAPORATORS
50 sq. ft. Artisan "Roto-therm" Evaporators, all S/S construction, F/V internal, 150 PSI jacket (2)
1 sq. ft. Artisan "Rototherm' Lab System, all S/S

COMPACTING PRESSES
6½ ton Manesty, Model BB3A, 27 station
6½ ton Manesty, Model BB3A, 33 station
4 ton Manesty, Model F–3, single punch

REFRIGERATION
200 ton Lewis Package Chiller, complete
30 ton Application Engineers, Package Chiller
15 ton Application Engineers, Package Chiller
10 ton Application Engineers, Package Chiller
7 ton Mayer Package Chiller
5 ton Peuchen Package Chiller, (2)

SCREENS
30" Sweco, S/S, 2 deck
18" Kason, S/S, 1 deck, unused (3)
36"x96" Rex-Carrier, 1 deck, S/S (4)
20"x48" Rotex, 1 deck, S/S

HEAT EXCHANGERS
Shell and tube heat exchangers, stainless steel, up to 2000 sq. ft. surface area–dozens!

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EQUIPMENT WANTED
GOOD, USED, CHEMICAL, PHARMACEUTICAL & RELATED EQUIPMENT – CENTRIFUGES, DRYERS, FILTERS, REACTORS, TANKS ETC.
WE WILL PURCHASE INDIVIDUAL ITEMS OR COMPLETE PLANTS.
CALL OUR OFFICE TODAY. TOP DOLLARS PAID. NO DEAL TOO BIG OR TOO SMALL.

DRYERS
Drum Dryers/Flakers
(1) 24" dia. x 36" Buflovac SS dble. drum dryer
(2) 32" dia.x 108" Blaw Knox CI dble. drum dryer
(1) 32"dia. x 17'6" Sandvik SS belt flaker
(1) 36"dia.x 10' Buflovak CI dble. drum dryer
(3) 42"dia.x120"Blaw Knox CI dble. drum dryer
(1) 48"dia.x 28" drum flaker, chrome plated drum
(1) 48"dia.x 40" CI flaker, mfg. by Buffalo Foundary
(1) 48"dia.x 40 drum flaker, nickel plated drum, mfg. Blaw-Knox

Fluid Bed
(1) 60 Kg. Aeromatic, Batch, 6'x9', 56,000
(1) 100 Kg. Aeromatic Model ST 100, sanitary SS
(1) Fitzpatrick Model FA 250, SS, 20 HP XP

Holoflite
(1) Western Precipitation Model P80SSO-A, twin screw, 12" dia. x 20' long, SS constr., jckt. rated 15 psi, complete with 7.5 HP vari-speed drive.
(1) New/Never-Used Joy Processor, CS, single screw, 16"x16' long, rated 110 psi @ 340° F., sprocket & chain drive by 1.5 HP varispeed drive.

Rotary Vacuum
(1) 200 Cu. Ft. Stokes, SS constr., complt.
(2) 165 Cu. Ft. Pfaudler, Double Cone, G/L, 30 &FV/50 psi jktd., 15 HP vari-drive
(1) 150 Cu. Ft. Blaw Knox, Nickel
(2) 132 Cu. Ft. Stokes, Nickel
(1) 72 Cu. Ft. Blaw Knox, SS
(1) 60 Cu. Ft. Titanium Double Cone
(1) 50 Cu. Ft. Gemco, 316SS sanitary, double cone
(1) 37.8 Sq. Ft. Horiz. Thin Film, vac. int. & 150 psig, 304/316SS
(1) 30 Cu. Ft. P-K Twin Shell, 304SS
(1) 20 Cu. Ft. Abbe Twin Cone, 304SS

Spray
(1) 30"x3' Bowen Laboratory w/3' cone bottom, SS constr., w/centrifugal atomizer, 3. HP blower & motor.(1)
(1) Niro lab size 32"diax2'w/2'cone w/centrif. atomizer SS contacts
(1) 7'10" Dia. Anhydro Complete System, sanitary SS
(1) 18' dia. Bowen complt. system SS contacts, new 1976

CENTRIFUGES
(1) Delaval BRPX 309, SS, 20HP
(1) Unused Model B-10 Podbielniak, Alloy 20
(1) Sharples AS-26, SS
(2) Sharples AS-16P, 316SS
(1) Alfa–Laval SS Decanter, Horiz.. Mdl. NX314
(2) Dorr Oliver Mdl. CH30 CSU "Morco," 316SS contacts, 150 HP
(1) Baker Perkins S-82 "Pusher Type," SS, 50 HP
(1) Bird 18" x 28", 316 ELC, contour bowl.
(2) Bird 24"x38", 316SS, 40 HP
(3) Sharples P-3000, 316SS, 30 HP
(1) Sharples P-1000, SS 20HP
(1) Unused Bird 30 x96, 317L SS
(1) Tolhurst 48" x 24" perf. basket, 316SS sanitary, auto. plow & discharge, rated 65 #/cu. ft. @ 900 RPM, 20 HP XP.
(1) Tolhurst 48" x 24" Batchmaster, 316SS, perf. basket, w/hydr. plow & 20 HP hydr. drive
(1) Tolhurst 48"x24" Batchmaster, rubber lined, perf. basket, w/hydr. plow & 20HP hydr. drive
(2) Tolhurst 48" x 24" Batchmaster, Heresite lined, perf. basket, w/hydr. plow & 20 HP hydr. drive
(1) Western states 48"x 24", 316 SS
(1) Fletcher 48"x 28" Suspended type, SS perf. basket, 20/10 HP
(1) Sharples Tornado 48" x 30", 316SS, perf. basket, 40 HP XP
(1) Alfa Laval Model MAPX 210 T24, SS wetted parts
(2) Sharples C-27, 316 SS, wetted parts, 40 HP
(1) Sharples C-20, Super-D-Hydrator, SS, 30 HP
(1) Dorr Oliver Mercone Screener Model C-400 X2, all SS, twin screw disch., 10 HP

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RECENT PURCHASES
●● FILTER BONANZA ●●
Sparkler pressure leaf Filters,
All stainless Steel Construction
2-Model #33D9
1-Model #18D12
1-Model #184D
1-Model #33S28

400 gal. G/L Pfaudler Vert Reciever, 55 Psi.
1750 gal. Reactor 316 SS, 15 PSI Int. 40 psi Jckt.
St Regis Bag Packer, Model#718 MLT.
5000 Gal. 304 SS jcktd., Mix Tank
2' dia. x 3' Chrome Plated Flaker
Alfa-Laval Centrifuge, Model NX214/314.
8000gal. CS, Ammonia Storage Tank, 250 PSI.
60 cu. ft.PK Blender 304 SS w/int. bar
63 cu. ft. C/S Marion Paddle Blender
2 cu. ft. PK Blender w/pin bar SS
175 cu. ft. PK Blender 316 SS
3.5 cu. ft. Prodex-Henschel Mixer, SS
500 liter Welex Mixers, SS
Littleford FKM-600 Mixer SS (2)
1000 gal. 316 SS Reactor, 15 & FV/50 psi jkt., 10 HP
1000 gal. 316 SS Reactor, 100/30 psi jkt., 10 HP

EVAPORATORS
(1) 1 Sq. Ft. Artisian "Kontro" Ajust-O-Film sys., 316SS
(1) 1.4 Sq. Ft. Luwa Wiped Film, 316SS, 1.5 HP
(1) 1.4 sq. Ft. Luwa thin film SS
(1) 2.6 Sq. Ft. Rodney Hunt Turbo Film 347 SS
(1) 5.4 sq. Ft. Luwa filmtruder, 316 LSS
(1) 6.54 Sq. Ft. Votator Evaporator System,316 SS contracts, 15 psi & FV & int., 150 psi jkt.
(1) 8.7 Sq. Ft. Rodney Hunt Turbo-Film, 304 SS contact parts, 15 psi & FV/150 psi jckt.
(1) 10.8 Sq. Ft. Luwa SS Wiped Film Evap. System, 15/550 psi
(1) 19.5 Sq. Ft. Votator Turba-Film, 304 Sanit. SS FV/150 psi 10HP
(1) 20 Sq. Ft. Kontro Horiz. Adjust-O-Film, 316ELC, 50 psig, 15 HP
(1) Approx 31 Sq. ft. Vert., Turbo-Film Processor, 304 SS Contacts
(1) Like New 37.8 Sq. Ft. Luwa Horiz. Thin-Film Dryer, 304/316L SS
(1) 40 Sq. Ft. Kontro Adjust-O-Film, SS constr., 20 HP
(1) 47 Sq. Ft. Artisan rising Film, Hast. "C"
(1) Approx 51 sq. ft. Pfaudler Wiped film, 316 SS, 100/85 & FV
(1) 80 Sq. Ft. Kontro Wiped Film Syst., SS constr., FV/150 psi, 40 HP
(1) UNUSED 86 sq. ft. Luwa thin film dryer horiz. 316 L wetted parts, FV int., 150 psi sat steam jkt.
(1) 141 Sq. Ft. Rodney Hunt Turbo-Film, 316 SS 15 psi int., 35 psi jkt 40 HP XP

●●●TANKS-ALL TYPES & SIZES

BLENDERS
800 Cu. Ft. Jktd. Dbl.Rbn., CS
Approx. 480 Cu. Ft. CS, 75HP
UNUSED 460 Cu. Ft. Marion Paddle, CS, 75 HP
300 Cu. Ft. CS Dbl. Cone, 30 HP
200 Cu. Ft. KS 316SS Dbl. Cone
175 Cu. Ft. P-K Twin Shell, 316SS
69.3 Cu. Ft. CS Dbl. Cone, 7.5 HP
63 Cu. Ft. Marion Paddle, CS
50 Cu. Ft. 304 SS P-K, Twin Shell, w/int. bar
60 Cu. Ft. Gemco Dbl. Cone, 304SS
30 Cu. Ft. P-k, 304 SS, W/liq. bar.
20 Cu. Ft.P-K, Twin shell, SS
16 Cu. Ft. Robinson Dbl. Rbn. CS
15 Cu. Ft. WC Marion SS
10 Cu. Ft. Gemco dbl. cone, CS, 1½HP
10 Cu. Ft. P-K Sanit Twin Shell 1½HP
10 Cu. Ft. Howes, CS, Dbl. Rbn.
5 Cu. Ft., SS, Dbl. Cone W/liquid-solids bar
2 Cu. Ft. P-K Twin Shell, SS Constr., w/pin int. bar
10" P-K zig zag

FILTERS
Pressure Leaf
1–562 Sq. Ft., 316ELC, Hercules, 28 leaves
1–512 Sq. Ft., 316SS, Niagara, 21 leaves
1–400 Sq. Ft. R/L Sparkler
1–327 Sq. Ft., 304SS, Ind. Filter, 11 leaves
1–320 Sq. Ft. Durco 316 SS, 11 Leaves
1–259 Sq. Ft. Pronto Mdl. #3259, 75 psig
1–Approx. 206 Sq. Ft., SS, Sparkler, Horiz.
1–200 Sq. Ft., SS, Hercules, Horiz.
1–191 Sq. Ft. Enzinger, SS, Vert., 75 psi
1 – 157.64 sq. Ft. Sparkler model 55-5-28, 316SS
1–150 Sq. Ft. Horiz., 12 Vert. Leaf 316SS
1–135 Sq. Ft. Ni, Bowser, Vert.
1–35 Sq. Ft. Hercules Model 5, 316 SS, horiz. tank vert leaves 50 psi

Rotary Vacuum
1–56.5 Sq. Ft. KS, Inconel 600
1–56.5 Sq. Ft. K-S, 316SS, flexibelt disch.
1–87.92 Sq. Ft. Feinc, SS wetted parts, spring disch., 56" dia. x 6' face drum
1–132 Sq. Ft. Dorr Oliver, 304SS, maxi-belt disch.
1–200 Sq. Ft. Eimco, 316SS, 8'x8'
4–250 Sq. Ft. D.O. 316L SS Precoat, 8" x10', sanit
1–250 Sq. Ft. K-S 316SS, coil disch.
1–300 Sq. Ft. Eimco, 316SS wetted parts, precoat type w/knife disch., 10" dia. x 10' drum, complt. w/control panel & aux. equipment
1–314 Sq. Ft. Eimco, precoat disch., 316SS
1-400 Sq. Ft. Eimco, CS, Precoat
1–500 Sq. Ft. Eimco, 316SS, belt disch.
1–3'x1' 316SS, knife disch.
1–3'x1' Dorr Oliver, FRP w/receiver & Nash H4 vac. pump, 10 HP
1–3'x 1' K-S comp. sys., 316 SS Flex-belt disch

BUY DIRECT FROM PLANT SITE AND SAVE

9650 SCFM Thermo Energy Recovery System

ATTRACTIVELY PRICED
1 - Approx. 51 Sq. Ft., Pfaudler, Wiped Film Evapor. 316 SS wetted parts ASME Coded, jacket rated 100 psi w/internal vacuum. Complete w/flange mounted motor to Pfaudler TW drive w/mechanical seal, lubricator & integral heat exchanger. Call today for more details.

MANY MORE ITEMS IN STOCK-CALL IDM TODAY!

RIGGING/DISMANTLING DEMOLITION/ASBESTOS REMOVAL
WE ARE EXPERTS AT DISMANTLING, REERECTION, RIGGING DEMOLITION AND ASBESTOS REMOVAL WITH TERRIFIC REFERENCES BOTH NATIONALLY AND INTERNATIONALLY
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GLASS...GLASS...GLASS
WE ARE GLASS SPECIALISTS WITH A TREMENDOUS INVENTORY FEATURING UNUSED, USED AND REGLASSED ITEMS. OUR SHOP PERSONNEL ARE FULLY TRAINED TO HANDLE GLASS.

REACTORS
Glass Lined
4,000 Gal. Pfaudler, 100/90 psi, TW
1,000 Gal. Pfaudler, 100&FV/90 psi, 4RW
1,000 Gal. Pfaudler, RA60 Series, 100& FV/90 psi, 4DW
1,000 Gal. Pfaudler, RA60 Series, 100& FV/90 psi, 4TW
800 Gal. SS clad, 60/60 psi
750 gal. DeDietrick, Phila drive
500 Gal. Pfaudler, 100&FV/85 psi, BH drive

*Partial Listing - Much More Inventory Glass Lined Storage Tanks & Parts also Available.

Stainless Steel
4,000 Gal. 316SS, Atmos./50 psi, withcoils
3,000 Gal. 347SS Blaw Knox, 150/50 psi
2,500 Gal. 316L SS, 75/75 psi, 150 psi int. coils
2000 Gal. Nooter Autoclave, 316L 2000 psi, FV int. coils
2,000 Gal. Dusenberg, 316 SS,15/35 & FV int., 50 psi jkt.
1,750 Gal. 316SS Nolte, 1467/50 psi
1,500 Gal. 304SS, 10 HP Lightnin
1,000 Gal. 304SS, 250/80 psi
1,000 Gal. 316SS, 50/75 psi jkt
1,000 Gal. 316 SS, 15 & FV/50, 10 HP
1,000 Gal. 316 SS, 100/30 10 HP
750 Gal. 316SS, 75 & FV/50 psi
750 Gal. 304SS, 50/60 psi
600 Gal. 316SS, 3000psi, 10 HP
600 Gal. SS, 50 psi, 1.5 HP XP
500 Gal. 316SS, 55 & FV/55 psi
100 Gal. 316SS, 15/50 psi
100 Gal. 316ELC SS, 500/90 psi

★★★ SPECIAL OFFER ★★★
4-DRAIS SAND MILLS, TYPE PM-80-STS-DDA. MANUFACTURED 1984-85. PRICED TO SELL ● CALL FOR DETAILS

MIXERS
4.5 Gal. Kneader Master Cont., SS w/jkt.
5 Gal. AMK 304SS Jcktd. Kneader Extruder
15 Gal. W.C. Readco Sigma Blade Dbl. arm
25 gal. Readco DBL/Arm Sigma Blade jktd. SS construction 15 H.P.
80 Gal. Hockmeyer Pony, SS contacts, 7.5 HP varispeed
100 Gal., SS, Sigma Blade, Jcktd. 40 HP
200 gal. W-P CS dble arm Sigma blade, 20 HP
250 gal. AMK Kneader Extruder, Sigma Blades, CS construc, 40 psig,trough jkt.
500 liter Welex hi intensity, SS contact parts
500 Gal. S-W Rubber Cement, CS, 2-10 HP motors (2)
Unused 1000 Gal. Sanitary 316SS B-K Dbl. Motion Change Can; 100&FV/165 PSI, 125HP
Littleford Model FKM-600D, SS
Littleford Model FKM-600S, SS
Littleford Model FKM-2000, SS, w/choppers
Littleford Model FM 100 Sanit. SS w/choppers
3.5 Cu. Ft. Prodex Henchel Mdl. 35 J SS, SS Const.
7 Cu. Ft. 304SS Nauta Model MBX-70
10.6 Cu. Ft. Nauta D-105, CS
10 HP Hockmeyer High Speed Disperser
Welding Eng. Model 2FV1V2S Twin screw Extruder, SS, Contacts, 150 psi
Koehring mdl. 350, 40 HP

PLUS LOTS - LOTS MORE

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RE-ERECTION
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TX 28 9454 CABLE AARONEQCO

QUALITY EQUIPMENT AT COMPETIVE PRICES

Special Sale

MUST MOVE STAINLESS TANKS
12,000 GAL., T304SS, 12'Dia.x 14' high, flat bottom, open top (16)
PRICE $8000 ea. FOB PA #20655

TANKS-S/S

21283-Tank, S/S vert., 1200 gal., 6' dia.x6', flat top & bot.
20651-Tank, SS, 9000 gal., agit., 12' dia. x 14'6" H.
20655-Tank, SS, 12000 gal., 12' dia. x 14', flat bottom, open top.
17043-Jos Oat horz. tank, 304SS, 16,000 gal., 12'6" dia. x 22'9½" long. 10 PSI.

UNUSED CENTRIFUGES

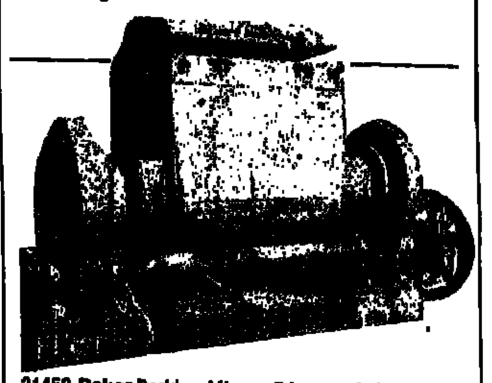
21593-Sharples P5400 Sanitary Centrifuges w/200 HP motor, 25 HP back-drive, gearbox, 5" pitch conveyor, CIP, control panel (2) LATE MODEL

CENTRIFUGES

20827-Bird, 18"x24" steel, conical bowl.
20828-Bird, 24"x38" steel, con. bowl, gearbox.
20819-Bird, 24"x38", S/S, 15 degree, contour bowl.
20684-Bird 24"x60", H series, steel w/motor.
20364-Bird 32"x 50", SS T316 contour, 75HP.
12883-Bird 36"x96" contour, 10 deg., T317 ELC.
20137-Alfa Laval, NX 418-B31-60, 316SS, gearbox.
17308-Dorr Oliver, 304SS, Merco mdl. 16L, 30 HP.
13565-Sharples, mdl. P 600, gearbox, motor.
19767-Unused Sharples, 3 phase, P3000, S/S, carbide.
20407-Sharples P2000 316SS, 20 HP drive motor.
21359-Sharples P3000 w/gearbox.
20686-Sharples P3000, 52:1 gearbox, S/S casting.
21725-Sharples, P3400, S/S, gearbox & motor.
19249-Sharples, P5400, 316/317SS, 200 HP, gearbox

CENT-BASKET VERT.

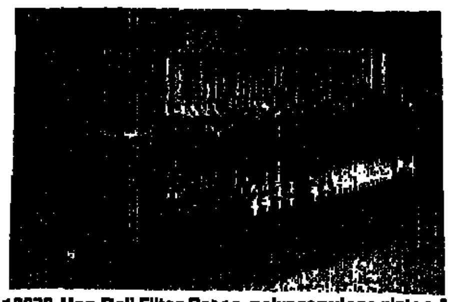
21408-Delaval 22"x16" perf. basket hyd. drive.
15815-Delaval Mark III, perf. basket, 40"x24", 316SS, 30 HP, hydr., drive.
19446-Sharples Sludge-Pak, SP-5500, 40"x24" basket centrifuge.



21459-Baker Perkins Mixer, dbl. arm, C/S, 300 gal. Geared both ends, 100 HP, mod. 18JUMMZ.

FILTER PRESSES

19846-Shriver P&F filter press, 12"x12" alum. plates, closed delivery, 23 chambers.
20534-Sperry Filter Press, 30", alumn.
20539-Sperry filter press 30", 35 Aluminum plates, 357 sq.
15370-Shriver 32" x 32", polypropylene, 27 plates, ratchet closing.
15929-Shriver ALP, plate & frame, 18 36" x 36", S/S recessed plates.
20076-Sperry filter press, 36", cast iron plates, closed deliv.
19462-Independent filter press, 42" x 42", polypropylene, 4 eye closed, 34 chambers.
20550-Sperry filter press, 42" End closer, 41 alum. plates.



18373-Von Roll Filter Press, polypropylene plates & frames, 32 chambers, 722 sq. ft. filter area.

DIESEL GENERATORS

22111-Detroit Diesel Generator 400 KW 16 cyl. mod. 71647000, fan cooled w/switchgear. S/N 66375
22112-Detroit Diesel Generator 500 KW 16 cyl. mod. 71647305, Turbo-charged w/switchgear S/N 68724
Call Jerry Cohen 312-350-2200

21772-Drucknutsche (Rosemund Type) Pressure batch Filter, 117" Dia., 75 Sq. Ft., jacketed, agit. 15 HP, Side Discharge... Call Herb Landy (312) 350-2200

REACTORS

20252-Unused Reactor, 600 gal., 304SS dimple jktd.
10138-Pfaudler, 800 gal., T-316 L SS, 55 PSI int/150 PSI.
20928-Brighton, 4000 gal., 8' dia x 10', 316 ELC S/S
20456-Reactor, 4,000 gal., 316 S/S, 8' dia x 7'9" st side.
15475-Brighton, 4000 gal., 316SS, vacuum.
20287-GH Hicks, 4000 gal., 316 SS, pipe coil jkt.
20923-Richmnd Eng. Reactor, 4600 gal., T316 stain/clad.
Pfaudler 10,000 gal. reactors T316L, 100 psi int, 180 psi.
Pfaudler 15,000 gal. reactor T316L, 100 psi int., 200 psi jkt.

DUST COLLECTORS

21125-Fabri-Jet mdl. SQ9-48 bin vent, 42 sq. ft.
16398-Mikro dust collector, S/S, 63 sq. ft., mdl. 9-6-100, pulse jet.
21153-EVO, bin vent, 72 sq. ft., S/S, 5 HP
20253-Unused EVO pulse jet collector, mdl. 84BF009C, 90 sq ft
21192-JH Day mdl. RJ-18RJ36, 125 sq. ft., CS, 3 HP
21222-Fabri-Jet, mdl SQ16-80, 151 sq ft.
20398-Pulse jet collector, "FlexKleen," mdl. 58CT24 AV II w/175 sq. ft., cloth, C.S.
21286-Mikro dust collector, 285 sq. ft., S/S.
20258-Unused EVO Corp. pulse jet dust collector, mdl. 99BF030C, 350 sq. ft.
20255-Unused EVO Corp. dust collector, shaker type, mdl. MS049C10, 575 sq. ft.

SCREENS

21203-Sprout Waldron sifter, D10, 6 decks.
21150-Sprout Waldron, D10, 1 HP, 10 decks, S/S cont.
21167-Sprout Waldron, D10, 2HP, 10 decks, S/S cont.

MIXER/EXTRUDER

17654-AMK 25 gal. Mixttruder, Sigma, ST 7.5 HP.
18298-J.H. Day 25 gal. Dispersion, 25 HP vari main, 10 HP vari screw.
20906-AMK 30 gal. S/S, jkt. Sigma, 7.5 HP Main, 6 HP screw.
21334-Ross 40 gal., S/S hot oil jkt., Sigma 6" disch. screw.
19826-AMK 50 gal. ST, jkt., Sigma.
19421-AMK 75 gal ST, jkt., Sigma, 10" disch. screw.
17136-AMK 120 gal., ST Sigma, 11.5" screw.
14832-AMK 150 gal., S/S, Sigma 15HP main, 10HP screw
19494-AMK 150 gal., S/S Sigma, 50 HP main, 10HP screw
20116-AMK 150 gal., ST, Sigma, 15 HP/10 HP
503527-New Aaron 300 gal., T304SS, mix extruder, Sigma, jkt., up to 200 HP main, 75 HP hyd. screw.
STILL INSTALLED . . . CALL NOW!

21350-B.P. 500 gal. Sigma steel, jkt. 125 psi, 150 HP, Hyd. tilt

MIXERS – PLOW

503765-Littleford, FKM 600D, SS jacketed, 25 HP.
20754-Littleford, FKM 3000D 65 CF, S/S, full jacket.
19214-New Plow Mixer, 80 cu. ft. 347SS, jacket, 100HP.
20829-Littleford FKM 4200D, S/S, 87 cu. ft. JKT.

MIXER RIBBON

21120-Ribbon Blender, S/S, 10 cu. ft., jkt. SS, 150 psi.
20276-Read ribbon blender, 14.7 cu. ft. 304SS, 3 HP.
20616-Unused Day, 316SS, 23 cu. ft., 5HP.
20189-Robinson, 25 cu. ft., S/S, jacket, 10 HP.
20985-Int'l 34 cu. ft. S/S dbl. ribbon, 5 HP. (4)
20212-Hess ribbon, 36 cu. ft., S/S, 15 HP.
19266-Ribbon Mix 80 cu. ft. T304 SS, 5 HP (4)
19566-Howe, 115 cu. ft., sanitary S/S, double spiral ribbon.
20983-Strong Scott blender, 130 cu. ft., 304SS, 25 XP gear motor.
21124-Ribbon Blender, 304SS jkt., 160 cu. ft., 30 HP.
20614-Unused JH Day ribbon, S/S 270 cu. ft., 25 HP.
21114-JH Day ribbon blender, S/S clad, 75 HP, 480 cu.ft.

DRYER-ROTARY VAC.

19844-Bethlehem Porcupine Processor/Polyester Chip Crystallizer 30" dia. x 18' long, T304 SS, jkt, 20 HP (6).

LIQUIDATION SALE

BUY FROM CALUMET CITY ILLINOIS LOCATION AND SAVE!

LARGE POLYSTYRENE PLANT

21898–Brighton Corp. 12,000 gal. vessel.

21875–Bins, 176 cu. ft., S/S, cone bottom flat top. (4)
21891–Bins, 450 cu. ft., C/S, epoxy lined. (8)
21904–Bins, 450 cu. ft., C/S, epoxy lined. (6)
21905–Bins, 500 cu. ft., C/S, epoxy lined, flat top, conical bottom. (4)
21918–Worthington cent. pump, C/S, 15 HP, 200 GPM at 44 psig (2)
21916–Union Pump-Inline, C/S, mod. 4x6x8.5 VCK, 40 HP. (3)

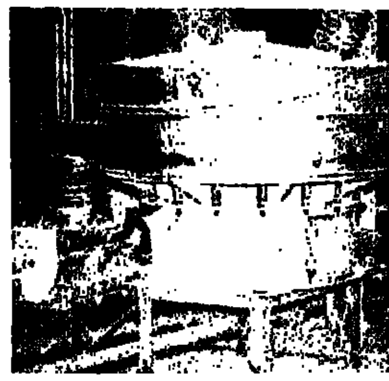
21888–Strong Scott Rib Blender.

21917–Ingersol Rand Pump, In-line pump, C/S, 30 HP.
21915–Goulds, C/S turbine pump, 200 HP. (2)
21913–Worthington cent. pump, S&S, 2 HP. (4)
21912–Union pump-inline, S/S, 7.5 HP (2)
21899–Pfaudler Reactor, 1,500 gal., 316L SS dimple jkt.
21896–Pfaudler Reactor, 10,000 gal. 316L SS clad, 60 HP. (4)
21900–Pfaudler Reactor, 15,000 gal. 316L SS dimple jkt. (3)

21871–Prodex 8", 30:1 L/D Extruder.

21906–Edw Renneburg Rot. Dryer, S/S, steam heat, 10 HP. (4)
21881–Heaters, C/S steam, type BNF 2420 (6)
21914–Flotronics bin vent, filters, 122 sq. ft., 12 bags.
21890–Katron feeder, twin screw volumetric, S/S. (4)
21889–Katron Feeder twin srew, S/S mod. 5400-150 (4)
21901–Sparkler filter, 352 sq. ft. C/S, mod. VR-32-32.
21882–Screw conveyor, 304 SS, 7" dia. x 11L, 1.5 HP.
21888–Strong Scott Rib Blender, 25 cu. ft., 5 HP. (3)
21920–Welex extruder 6", 30:1 L/D, 400 HP.
21870–Welex extruder 8", 30:1 L/D, 600 HP.
21876–Conair pelletizer, S/S, mod. 1024, 40 HP. (2)
21874–Water bath, S/S, portable. (4)
21907–McMillen hyd. pump, 2 HP (2)
21887–Ross Static Mixer, 304SS, 3"x6 element. (4)

21877–Witte screeners, mod. 260-D S/S (2)
21878–Gorman Rupp pump, centrifugal, C/S mod. 82EZ
21871–Prodex extruder 8", 30:1 L/D ratio, 600 HP.
21872–Welex extruder 8", 30:1 L/D ratio, 700 HP.
21873–Welex extruder 8", 30:1 L/D ratio, 700 HP.
21919–Welex extruder 8", 30:1 L/D ratio, 700 HP.
21892–Buffalo blower, size 30, C/S, 10 HP (3)
21908–Buffalo exhaust fan, size 36, type B, 15 HP.
21880–Sutor Bill Blower, C/S, 40 HP. (4)
21922–Buffalo blower, type 40-3CB, 40 HP. (4)
21894–Buffalo blower, mod. 45-3CB, 75 HP. (3)
21883–Bird, 32 x 50 centrifuge, 80:1 gearbox. (4)

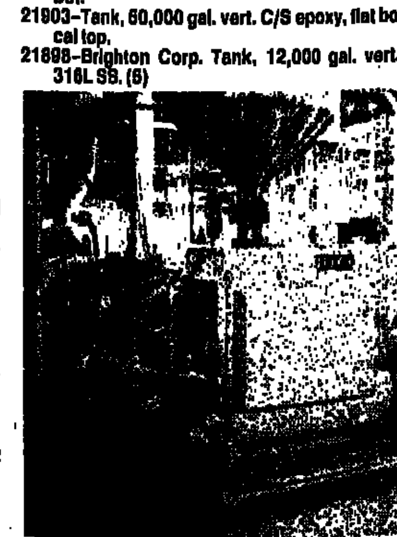


21879–Sweco 60" Sifter.

21902–Worthington compressor, mod. 4BB-2, vert. 125 psi. (2)
21879–Sweco sifter 60", mod. LS60S88, 2.5 HP.
21923–Kason sifter 60", mod. K601SS, S/S, 1 HP.
21884–Flotronics Cyclone mod. FTHEC370-T, 304 S/S 12" dia. dish top. (3)

21883–Bird Centrifuge, 32x50, 80:1 gearbox.

21893–Environeering scrubber, mod. A33-14000
21895–Tank, 850 gal. vert. coal tar epoxy lined.
21911–Tank, 8400 gal. vert. C/S epoxy coated flat top/bot.
21903–Tank, 60,000 gal. vert. C/S epoxy, flat bot. conical top.
21898–Brighton Corp. Tank, 12,000 gal. vert., solid 316L SS. (6)



21870–Welex 8" Extruder, 600 HP.

21897–Metal Arts Corp. vessel, 17,000 gal. vert. 317L SS. (2)
21910–Tank, 840 gal., flat top & bottom.
21920–Modern Welding Tank, 4800 gal. horiz. rubber lined.

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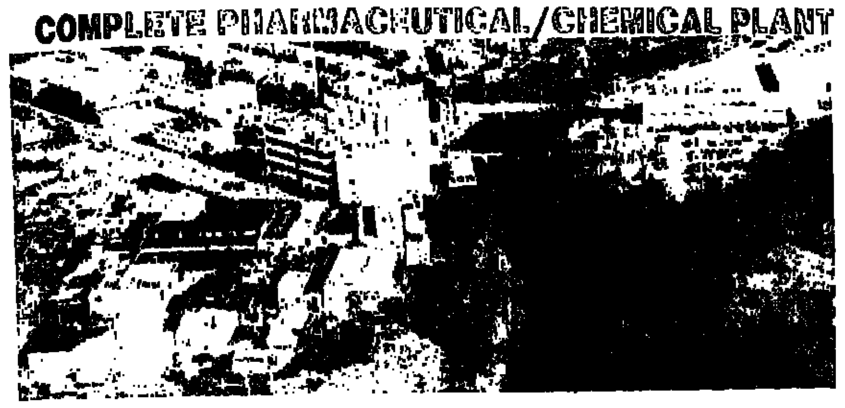

PLANT WAS IN OPERATION THRU APRIL OF 1986
COMPLETE PLANT EQUIPMENT FOR SALE INCLUDING:
PILOT...FULL SCALE MANUFACTURING EQUIPMENT, PLANT UTILITIES

COMPLETE REACTOR SYSTEMS...WASTE TREATMENT PLANT
...ROTARY VACUUM DRYERS... CENTRIFUGES...TANK FARMS
...AND MUCH MORE!

JUST A PARTIAL LISTING OF EQUIPMENT:

CENTRIFUGES

ALL 316SS EQUIPMENT COMPLETE WITH CONTROLS, PLOWS, SET UP FOR NITROGEN PURGE EACH INDIVIDUALLY SKID MOUNTED
48"x24" SHARPLES SS, HYDRAULIC DRIVE (4)
40"X24" SHARPLES SS, HYDRAULIC DRIVE
30"X15" SHARPLES "TORONADO-MATIC," SS WITH HYDRAULIC DRIVE (3)

CHILLERS

3, 25, 30, 40, 100, 125 TON

COMPRESSORS

INGERSOLL RAND XLE 16-10x7, 150 HP, 100 PSIG (3)
INGERSOLL RAND XLE-15 ½-10x7, 125 HP, 70 PSIG

DRYERS

DOUBLE CONE VACUUM SYSTEMS: DEDIETRICH G/L, 60 CU. FT.
PFAUDLER G/L, 70 CU. FT.
DEVINE 316SS, (1) 30, (2) 70, (2) 90 CU. FT. SYSTEMS
316SS ROTARY VACUUM DRYER SYSTEMS: (3) 142, (1) 120 CU. FT.
SHELF: 6 VACUUM DRYER SYSTEMS
VARIOUS SIZES & MATERIALS OF CONSTRUCTION
SS & CS ROTARY VAC. DRYERS: 125, 100, 90, 80, CU. FT.

FILTERS

FILTER PRESSES: ERTEL PRESSURE LEAF (6)
STAR 18" DIA., 19 & 21 CHAMBERS, SS
SPERRY 56", 28 & 35 CHAMBERS (4)
VACUUM BELT EXTRACTORS: 2 EIMCO 2'x12',316SS VAC. BELT FILTER SYSTEMS
40 FILTER PRESSES 42" 43" 48" 56" POLY PRO, R/L CAST IRON
4 PASSAVANT MDL. 700 VAC-U-PRESS BELT FILTERS, 250 SQ. FT

FIRE PREVENTION EQUIPMENT

INCLUDING: DIESEL POWERED FIRE PUMP...NEW IN 1984
ELECTRIC POWERED FIRE PUMP 150 HP

MIXERS

100 CU. FT. MUNSON SS DOUBLE RIBBON BLENDER SYSTEM
LITTLEFORD MDL. FKM2000-0, 73.5 CU. FT.
70 CU. FT. DAY, SS RIBBON BLENDER SYSTEM

MILLS

BAUERMEISTER TURBOMILL, 40 HP, COMPLETE SYSTEM
FITZPATRICK MDL. D6 COMMINUTOR 7.5 HP
FITZMILL MDL. DKSO12 COMMINUTOR
ENTOLETER MILL 5 HP, MDL. M1112G1-23

100'S OF PUMPS

VARIOUS ...MAKES...MODELS...SIZES...MATERIALS OF CONSTRUCTION TOO NUMEROUS TO MENTION

REACTORS

GLASS LINED

11 SS JKT. AGIT. KETTLES FROM 750 GAL. TO 5,000 GAL.

(1) 3,000, (7) 2,000, (22) 1,000 (8) 500, (2) 300, (1) 200, (1) 130, (4) 100, (4) 50, (1) 30 GALLON
ALL REACTORS EQUIPPED WITH TW DRIVES, MECHANICAL SEALS MANY WITH VARIABLE SPEED DRIVES, GLASS RECEIVERS & GRAPHITE HEAT EXCHANGER

STAINLESS STEEL 316 & 316 ELC
(1) 4,000, (1) 3,000, (3) 2200, (6) 2000, (1) 1,300, (2) 1,250, (9) 1,100, (7) 1,000, (7) 500, (2) 300, (1) 30, (1) 10 GALLON

DISTILLATION EQUIPMENT

SMITH MOLECULAR ROTA-FILM MDL. 700-12-P, SKID MOUNTED
SOLVENT RECOVERY SYSTEM
OTHER DISTILLATION COLUMNS AVAILABLE

– SPECIAL –

900 GAL. SS SIGMA MIXER
SHARPLES SS MODEL P-3400 (4)
6M² ROSENMUND (NUTSCHE TYPE) 316 SS FILTER
4,200 GAL. HAST C REACTOR 125 AND FV/175
UNUSED 1900 SQ. FT. HAST C HEAT EXCHANGER

(5) 290 CU. FT. SS ROT. VAC. DRYER SYSTEMS
(1) 4000 GAL. G/L REACTOR 100FV/150FV
(1) 6000 GAL. SS REACTOR 70/175 PSI ½ PIPE COIL JKT.

TANKS/RECEIVERS

GLASS LINED RECEIVERS & CHEMSTORS
(2) 2,000, (10) 1,000 (1) 500, (4) 250, (5) 100, (2) 50 GALLON

STAINLESS STEEL
(1) 5,000, (1) 4,000 (1) 3,000, (6) 2,000 (3) 1,500, (4) 1,000, (1) 800, (7) 500, (1) 300, (3) 250, (5) 200, (1) 150, (3) 100, (3) 50 GALLON

TANK FARMS

GLASS LINED: (2) 10,000, (1) 5,000, (2) 2,000 GALLON
STAINLESS STEEL 316SS & 316LSS: (10) 10,000, (1) 8,000 (3) 7,500, (2) 6,000, (3) 5,000 (3) 4,000 GALLON
KYNAR LINED: 30,000 GALLON
HERESITE LINED: (1) 10,000 GALLON
LITHCOTE: (1) 10,000 GALLON
RUBBER LINED: (3) 10,000 GALLON
FRP: (1) 12,000 GALLON
STEEL: (1) 15,000 (1) 8,000, (2) 6,000, (7) 1,000 GALLON

IF YOU ARE BUILDING A NEW CHEMICL PLANT OR EXPANDING A PROCESS YOU MUST VISIT THIS LIQUIDATION SITE

CORN SYRUP/STARCH PLANT

200,000 LBS/HR @ 300 PSI BOILER
150,000 LBS/HR @ 700 PSI PACKAGE BOILER
50,000 LBS/HR @ 250 PSI PACKAGE BOILER
6'x 50' 304 SS ROT. HOT AIR DRYER
5'x 30' CS ROT. HOT AIR DRYER
4'x 31', 72 TUBE SS ROT STEAM DRYER
24,000 SQ. FT. TRIPLE EFFECT EVAP. TI TUBES
600 SQ. FT U. S. AUTOJET FILTER CEILCOTE LND (3)
500 SQ. FT. HERCULES 316 ELC PR/LF FILTERS (4)
12'x 15' EIMCO BELT CS ROT. VAC. FILTER (2)
7'6"x16' EIMCO 316 SS PRECOAT FILTER (2)
8'x 10' EIMCO 316 SS PRECOAT FILTER (2)
500 SQ FT. 316 SS PLATE HT. EXCH.
265 SQ. FT. APV 316 SS PLATE HT EXCH.
DUCON SS WET SCRUBBER 11500 CFM
20,000 GAL 316 LSS MIX TANK 13'x 20'
9,000 GAL. SS VERT. MIX TANK 13'x 8'
7,000 GAL. 316 SS CONE BOTM. TANK 10'8"x 9'6"
6,500 GAL 316 SS CONE BOTM. MIX TANK 12'x7'8"
5500 GAL SS MIX TANK 12'x 6' 316 (11)
3000 GAL SS MIX TANK 9'x 6'6" (3)
3000 GAL 316 VAC.TANK15 PSI/FV
PLUS MANY MORE ITEMS

4000, 5000, 6000 GAL. RUBBER-LINED AGITATED REACTORS, VERY ATTRACTIVE PRICES !

SYNTHETIC GAS PLANT

250,000,000 CU. FT./DAY

COMPRISED OF TWO TRAINS ON 60 ACRES OF LAND
WE WILL SELL ENTIRE FACILITY OR INDIVIDUAL PIECES OF EQUIPMENT

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KETTLES–REACTORS, SS

30,000 gal. 304SS fermentors, 14' x 24', 25 psi/vac., coils, 200 HP agit. (4)
5,000 gal. 304SS, atm. int., 75 psi jkt., agit.
4,100 gal. 304SS kettle, 16 psi jkt., 5 HP agit.
3,500 gal. 316SS kettle, 20 psi jkt., 7½ HP agit. (2)
2,500 gal. 304SS reactor, 75 psi/FV int., 180 psi jkt.
1,500 gal. 304SS kettles, jktd., 5 HP agit. (3)
1,500 gal. Pfaudler 316L SS reactor, FV/180 psi, 5 HP Agit. (2)
1,150 gal. 304SS reactor, 15 psi int., 25 psi jkt., 5 HP agit.
900 gal. 304SS reactor, 75 psi/FV int., 150 psi jkt., agit.
600 gal. 304SS reactor, 300 psi int., 75 psi jkt., coils (3)
500 gal. 304SS reactor, 150 psi int., 150 psi jkt., 5 HP agit.
300 gal. 316SS reactor, 75 psi/FV int., 60 psi jkt.
(50)... 316SS and 304SS reactors and kettles from 5 gallon to 400 gallon... call for list.

BIG PFAUDLER 316SS REACTORS

(3) 15,000 gal. Pfaudler, 316SS, 12'6"x 15', 100 psi, 200 psi jkt. Agit.
(4) 10,000 gal. Pfaudler, 316SS, 11'6"x 12'4", 100 psi, 180 psi, jkt. Agit.

REACTORS–GLASS

2 gal. Pfaudler, 750 psi/FV, 700 psi jkt.
20 gal. Pfaudler, 35 psi, 100 psi jkt., agit. (2)
30 gal. Pfaudler, jktd.
50 gal. Pfaudler, 25 psi, 100 psi jkt.
50 gal. Pfaudler, 100 psi/vac., 85 psi jkt., agit., 1975
100 gal. Pfaudler, 25 psi, 90 psi jkt., agit.
150 gal. Pfaudler, 25 psi/vac., 90 psi jkt., agit.
300 gal. Glascote, 25 psi/vac., 90 psi jkt.
500 gal. Pfaudler, 100 psi/vac., 90 psi jkt., vari-drive agit.
500 gal. DeDietrich, 65 psi/vac., 105 psi jkt., 5 HP agit.
750 gal. Pfaudler, 25 psi, 85 psi jkt., 5 TW agit.
1,000 gal. Pfaudler, 100 psi, 90 psi jkt.
1,000 gal. Pfaudler, 75 psi/vac., 90 psi jkt., 10 HP agit.
1,500 gal. DeDietrich, 100 psi/vac., 90 psi jkt., 1981,
1,500 gal. Pfaudler, 100 psi/vac., 90 psi jkt., 25 HP agit.
2,000 gal. Pfaudler, 100 psi/vac., 90 psi jkt., 15 HP agit.
2,500 gal. Pfaudler, 150 psi, 90 psi jkt., #TW6 agit.

NEW LIQUIDATION! CHEMICAL/POLYMER PLANT....ILLINOIS ..BUY BEFORE REMOVAL AND SAVE!!

Bird 32"x 50", centrifuges, 316SS, contour (2)
Welex 8" Extruder, 700 HP, 30:1 L/D (5)
Welex 6" Extruder, 400 HP, 30:1 L/D (2)
Conair 24" pelletizer, 40 HP (2)
Renneberg 5'x 25' 304 SS rot. hot air dryers, 10 HP, (3)
Sweco & Kason 60" screens, SS (2)
K-Tron 7000#/hr. twin screw volumetric feeder, SS, (5)
Pfaudler 1,500 gal. 316L SS reactor, FV/-180 psi' 5 HP agit. (2)
Pfaudler 10,000 gal. 316L SS reactor, 150 psi/FV int., 180 psi jkt., hyd agit (4)
Worth. Plant air comp., 323 CFM @ 125 psi, 75 HP, Model #4-BB-2 (2)
17,000 gal. & 12,000 gal. 316 SS Tanks (3)

PHONE (609) 267-1600

DRYERS

Blaw Knox 6'4"x 40' SS vac. dryer, 600 cu. ft.
Blaw Knox 36"x 20' vac. dryer 316L SS, 72 cu. ft.
Blaw Knox 66"x 36' vac. dryer, nickel
Mathis 24"x48" flaker, chrome plated
Sandvik 48"x24' SS belt flaker, UNUSED
Sargent 60" x 45' SS conveyor dryer
Stokes 8" x 11" drum flaker
Blaw Knox 32" x 90" dbl. drum
Buflovak 42" x 120" dbl. drum, 160 psi
Aeromatic #ST-5 fluid bed dryer, 5/10 KG
Witte 36" x 10' fluid bed, SS, sanit.-cooler
Stokes 36 sq. ft. Lyophilizer freeze-dryer
Renneberg 36" x 20" rotary dryer, 316 SS
Renneberg 5'x 25' 304SS rot. hot air dryers, w/cyclone, etc. (2)
96" x 50' Louisville SS rotary dryer
10' x 100' GATX rot. steam tube dryers, 140 psi (4)
Wyssmont #VTL-24 Turbo-tray dryer, 304SS
P-K 5 cu. ft. vac. dryer, 304SS
P-K 20 cu. ft. vac. dryer, 304L SS (2)
Abbe 30 cu. ft. 304SS vac. dryer
Devine 110 cu. ft. 304 SS vac. dryer
Pfaudler 165 cu. ft. glass-steel vac. dryers (2)
Abbe 325 cu. ft. 316SS vac. dryer
Devine 370 cu. ft. 316SS vac. dryer
Devine 564 sq. ft. vac. shell dryer
Niro 30" SS spray dryer
Turbulaire 48" x 7' spray dryer
Bowen 72" spray dryer, SS
Bowen 96" spray dryer, SS

FILTERS–VACUUM

36" x 1' Dorr-Oliver, fiber glass 9 sq. ft.
36" x 1' Ametek, 316 SS, 9 sq. ft.
40" x 3' Bird-Young, SS, 48 sq. ft.
4' x 16' Elmco, 316SS, 64 sq. ft., horiz.
6' x 3' Ametek, SS, 55 sq. ft.
6' x 4' Elmco, "Elmcomet" polypropylene, UNUSED
8' x 8' Elmco, SS, 200 sq. ft., precoat
8' x 10' Dorr-Oliver, 250 sq. ft., 316SS, precoat
8' x 12' Elmco, 316SS, precoat, 300 sq. ft., (3)
8' x 14' Dorr-Oliver, 316SS, precoat, 350 sq. ft. (2)
10' x 10' Elmco, 316SS, precoat, 314 sq. ft.
11'6"x 16' Elmco, SS contacts
12' x 14' Komline, 304SS, 525 sq. ft., flexibelt disch. (2)
45' dia. Elmco tilting pan. vac. filter, 316 SS

Dorr-Oliver 8' x 12' precoat rotary vacuum filters, 316SS contacts ...Prices Slashed, BIG SAVINGS!

FILTERS–PRESSURE

12 sq. ft. Ametek/Niagara #12, SS
54 sq. ft. Funda, SS, jktd.
65 sq. ft. Artisan "Dynamic" filter/washer, SS (2)
140 sq. ft. Niagara # 36-140 316 SS (2)
600 sq. ft. U.S. Autojet, 316SS, sanit.
1000 sq. ft. U.S. Autojet #1000, 304SS
30" Sperry filter press, 11 cu. ft.
36" Shriver filter press, 546 sq. ft., hydraulic
42" Shriver filter press, 777 sq. ft., hydraulic
48" Shriver ALP recessed filter press, SS, 276 sq. ft.
48" Clow, polypropylene recessed,1500 sq. ft.

PULVERIZERS

Mikro #5MA atomizer, 5 HP
Mikro #6MA atomizer, SS
Mikro #2DH pulv., SS, 5 HP
Pallman #REF8 pulv., 100 HP
Pallman #PP6 pulv., 50/75 HP
Abbe porcelain pebble mills... 36"x42", 36"x48", 42"x60", 48"x60", 60"x48" (7)
Raymond 50" 5-roller hi-side mill, 1961, UNUSED
Raymond #6058 Hi-side roller mills, dbl. whizzer (2)
Raymond #73612 Hi-side roller mill, dbl. whizzer

NEW LIQUIDATION DRY DETERGENT MFG. EQUIP. ...NORTH JERSEY!

5-Kielssler dust collectors: 2000, 1400, 535 sq. ft.
5-Cleveland 120 cu. ft ribbon blenders, 60 HP
6-60' C/C steel bucket elevators
5-Kielssler bag type dust collectors
2-Box Filling Lines/ 160, 120 Boxes/Min.
1-J.H.Day 200 gal. sigma blade mixer, jktd., 40 HP
2-Moyno Pump # IL8SSQ, 5HP.
2-FMC-Stokes form, fill & seal units
2-Eriez #62B vibratory feeder, SS, 60"x 18"x 24" UNUSED
1-Hesser volumetric powder carton filler.
2-Standard-Knapp case gluers
1-Hercules drum mixer
1-200 gal. SS tank, jkt. & agit.

Over (50) Bird & Sharples decanters

CENTRIFUGES

Sharples P-5400D-Canter, 316SS, Carbide tiles, late (2)
Sharples P-3400 D-canter, 316SS, tiles (2)
Sharples P-5000 D-canter, 316SS
Sharples P-660 D-canter, 316SS, back drive
Bird 12" x 30", 316SS, Decanter, 20 HP
Bird 18" x 28", 316SS, Decanter (3)
Bird 18" x 42" Decanter, steel, 10/30
Bird 24" x 38" Decanter, 304SS, contour-10
Bird 24" x 38" Decanter, 316SS, contour (3)
Bird 24" x 60" Decanter, steel
Bird 24" x 86" Decanter, SS, 125 HP
Bird 24"x 96" decanter, 304SS, carbide tiles, 1981, UNUSED (3)
Bird 32" x 50" Decanter, Monel, contour (2)
Bird 32" x 50" Decanter, 304SS, contour
DeLaval NX214-31B Decanter, 304SS, 20 HP (2)
Sharples AS16V "Super," SS (5)
Sharples AS26V "Super," SS
DeLaval BRPX-213-30, 316SS separator/desludgers (3)
Westfalia SAMN15037, Desludger/Separator, 316SS
Westfalia SA14-35-076 3-way separator, 316SS
Krupp 10" pusher, 316SS, 15 HP
Baker-Perkins 19" pusher, 304SS, 40 HP
Sharples 48" T-1600 auto-basket, 100 HP
Tolhurst 48" Batchmaster, rubber lined, 30 HP
Sharples 48" Tornado-Matic, SS, 25 HP
Delaval 48" Mark 111, 316SS hyd.
CENTRIFUGE PARTS... Sharples, Bird, DeLaval, etc.

EVAPORATORS

2.4 sq. ft. Rodney-Hunt SS, 3 HP
21 sq. ft. Rodney-Hunt Turbafilm #4, SS
87 sq. ft. Rodney-Hunt, 304 SS, Turbafilm
100 sq. ft. Pfaudler, 316L SS, wiped film
600 sq. ft. Goslin-Birmingham dbl. effect, SS
654 sq. ft. Buflovak dbl. effect, SS
1415 sq. ft. Vulcan, 316SS
1688 sq. ft. Roger dbl. effect, SS
Swenson 316SS continuous crystallizer, 9" x 14'

TANKS & VESSELS

30,000 gal., 304SS, 14' x 24', coils, 200 HP agit. (4)
30,000 gal. steel propane tanks, horiz. 250 psi (5)
20,000 gal., 304SS, 12' x 24' (2)
17,000 gal., 304SS, 11' x 24' (3
17,000 gal., 316LSS, 14'x 13', Agit. (2)
12,000 gal., 316LSS, 12'x 14', Agit. (5)
10,500 gal., 316L SS, 8' x 25'
10,400 gal., 304SS, 10'6" x 16', agit.
8,000 gal., 304SS, 10'6" x 12'
5,000 gal., 304SS, 9'x9', 25 HP agit.
3,500 gal., 304SS, 8'x9'
3,000 gal., 304SS, 7'x 10', agit.

MIXERS, BLENDERS

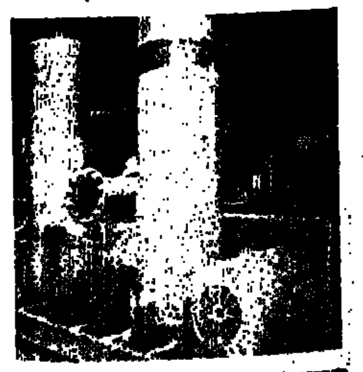
3.5 cu. ft. Henschel #FM15D, 17/20 KW
11.5 cu. ft. Henschel #115JSS, 92/46 HP
13.7 cu. ft. Lodige #W600/K1200, mix/cool comb.
16 cu. ft. Strong-Scott 304SS ribbon blender (3)
20 cu. ft. P-K twin shell SS
35 cu. ft. Day Nauta, #NBX350, SS
60 cu. ft. Gemco ,TW SH, Sanit, SS
69 cu. ft. Patterson dbl. cone, SS
70 cu. ft. Day Nauta, #NB700, 10 HP
75 cu. ft. Day Nauta, SS, jktd.
75 cu. ft. Robinson SS ribbon blender, jktd. (2)
98 cu. ft. Day Nauta, SS, 1981
110 cu. ft. J.H. Day, dbl. ribbon, 316SS
120 cu. ft. Cleveland ribbon blenders (6)
144 cu. ft. 304SS dbl. ribbon blender, 30 HP
169 cu. ft. Pfaudler, dbl. cone, glass steel jktd., vacuum
200 cu. ft. Young, ribbon, SS
316 cu. ft. Sprout-Waldron ribbon blender, SS, jktd.

(6) Nooter 4'x 14' 316 SS rot. vac. dryers, 1982, NEW

LIQUIDATION

NEW & UNUSED PROCESS EQUIP., 1982, IN ORIGINAL PACKING ... SOUTH CAROLINA, CALL! Phone (609) 267-1600

BALERS, Dispozapak #D600 balers, (2)
BAG PACKER, Howe-Richardson #G-S-17 semi-automatic bagging system SS contacts, heat sealed closer, etc.
BINS, 304L SS contacts, 1300 cu. ft./9720 gal., 11'6" x 11'6" x 18" high, steel reinforced (2)
CENTRIFUGE, Bird 24" x 96", 304SS, Model 15 solid bowl continuous, 10 deg. contour bowl, Tungsten carbide tiles on conveyor, 150 HP, 2900 RPM bowl speed (3)
CHLORINATION SYSTEM, Wallace & Tiernan #V800 floor mounted modular chlorinator
COLUMN, 46" dia. x 15'9", 304SS wash columns, designed for agitation (2)
CYCLONE, DuCon Model 700/175 304SS high efficiency cyclones, size 210, Type VM (8)
DRYERS, Nooter 4' x 14' rotary vac. dryer, 316L SS shell and jacket, Incoloy ribbon agit. ASME 100 psi/FV int. & jacket. 100 HP packaged Reliance drive with freq. converter.
FEEDERS, Acrison gravimetric weigh feeders, Model 403-15,000-3,000-BDF-4, 304 SS contacts, Model BDF-4 volumetric feeder, Size "R" metering, auger and disc. cylinder, etc., etc... all SS contacts
FURNACE, C-E Air Co. "Cor-Pak" thermo oxydizers, direct gas fired 8'x2" W x 7'9" H x 12'6" L (4)
MIXER, Air mix blender system, Koppers-Sprout Waldron #36-50, 500 cu. ft., 304SS, 8' x 19'10" w/483 sq. ft. dust collector (2)
MIXERS, Webb, 59" W x 15'L twin shaft paddle mixers or pug mills, 304SS contacts, (2)
PACKAGING SYSTEM, design to fill bags, palletize, shrink wrap, etc. automated system.
PULVERIZERS, Mikro #4TH pulverizers, 125 HP drive, (15)
PULVERIZERS, Mikro #4MP pulverizers, 125 HP drive (5)
PULVERIZERS, Mikro #1SCB, 7½ HP, with airlock & 304SS disc. chute
PUMPS, Able #H18-57-45 triplex pump, 50 GPM @ 1500 psi, 50 HP
PUMPS, Peabody #14DOH-2 cooling tower pumps, 2000 GPM at 140' head, 100 HP
SHRINK WRAPPERS, CTX Prod. #PSBV4X46 shrink wraps with oven



PNEUMATIC TRANSFER BLOWER PACKAGES

(30) Roots "Whispair" positive blowers, packaged by Flo-Tronics, for pneu. transfer...150, 100, 50, 40, 25, 20, 10, 5 HP sizes...ALL NEW!

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PERRY

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JLM

BLENDERS & MIXERS

-150 gal. Sigma Blade Mixer, CS, jktd.
-Readco Sigma Blade Mixer 10 gal. SS Dual Level (Like New)
-Readco 5 gal. SS jktd. vac. mixer 5 HP
-Ross 10 gal. Planetary Mixer SS
-Baker Perkins 300 gal. Sigma Blade jktd. vac. mixer
-Readco 3 gal. SS Sigma mixer, jktd.
-Patterson Kelly 1500 cu. ft. CS blender 75 HP
-Paul O. Abbe 90 cu.ft. SS/sanit. jktd. vac. blender 50HP
-Nauta Mixer 70 cu.ft. SS 10 HP (2)
-Devine 100 cu.ft. Dble Cone Blender, C/S
-Baker Perkins 150 gal. C/S jktd vac. flusher

CENTRIFUGES

-Bird Centrifuge CS 40" x 60" Solid Bowl w/drive
-Bird Centrifuge CS 18" x 28" Contour Bowl (UNUSED)
-Bird 36"x50" 347SS Contour Bowl
-Sharples 12" SS Lab Model/Brighton Lab
-Sharples P-5000 decanter SS 100 HP

DRYERS

-Pfaudler Conical vac. dryer G/L 72 cu. ft. complete system
-D & W Rotary vac. dryer, 316 SS, 2'x 7'
-Gemco SS 1 cu. ft. dble. cone vac. dryer
-Patterson-Kelly 3 cu.ft. twin shell vac dryer SS
-Stokes vac shelf dryers 48.9 sq.ft. (7)
-Pfaudler 2.6 cu.ft. G/L dbl. cone vac. dryer
-Standard Hersey 4'x30' Rotary dryer SS
-Bowen Spray Dryers 7½' & 5' SS
-Aeromatic fluid bed S.S. dryer Model 100ST 20
-Patterson-Kelley 5 cu.ft. SS Conical Vac Dryer
-Stokes 5'x30' Rotary Vac Dryer, Jktd, SS
-Gemco dbl. cone vac dryer 10 cu. ft. SS
-Patterson Kelley Twin Shell vac. dryer 75 cu. ft.

FILTERS

-Eimco 4x12 Belt Filter
-Sparkler Filter Mdl # 18-D-4 SS jkt./ 33D12/ SS 8-6
-U.S. Autojet filter SS 50 sq. ft.
-Ertel 12" SS filter press
-Hercules Filter 500 sq.ft. 316 SS
-Bird (Pannevis) Filter SS, 12" wide x 17' long
-Sperry 42" Plypro Filter Press 48 Chambers
-Shriver 36"ALP 316-SS, 41,48 Chambers (2)
-Evirex SS Rotary filters 6 x 6

GRINDERS & MILLS

-Patterson steel jktd ball mill (5)
-Ross 3-roll mill 4½ x 10"
-Premier Colloid mill Mdl. KSIF 40HP 316SS
-Fitzmill Mdl. No. D-6/DSAO/12 30HP SS
-Simpson Mueller 6"x5" size 2 VD mixer 20 HP
-Sweco Separator 48"/30"/24"/18" SS
-Greerco Colloid Mill, 3 HP

NEW ARRIVALS

-Patterson Kelly 30 cu. ft. twin shell blender jktd SS w/int. bar
-4000 gal. SS tank
-7500 gal. 316 SS mix tank 30 psi agit. (3)
-J.H. Day 300 gal. Sigma mixer vac. jktd. 50 HP (3)
-Henschel high-intensity mixer Model FM 500 14 cu. ft. SS jktd. w/aftercooler (complete system)
-Patterson Kelly 40 cu. ft. Twin Shell Blender SS with Liquid/Solid Bar
-150 cu. ft. Double Cone Blender
-Patterson Kelley Twin Shell 1 cu. ft. vac. processor SS
-Alpine Selve Model # A-32-100 LS
-Jeffrey Fluid Bed Dryer
-300 gal. SS Dispersion Tank (50)
-800 gal. 316 SS Reactor 42/PSI
-Fitzpatrick Fluid Bed Dryer SS Model # 75 Lab
-Reitz disintegator SS 5 H.P. 885 R.P.M.
-Autoclave 200 gal. SS 115/350
-Funda Filter 4' dia., SS, jktd. w/20 HP Drive
-Aeromatic Fluid Bed Dryer Lab Model #ST-15
-Aeromatic Spray Dryer Lab
-Colloid Mill 5 HP SS
-Strong Scott Rotary Vac Dryer, SS, 3x12 Solidaire
-SS Kettles 400, 300, 200, 150 (25)
-Baker Perkins 100 gal. CS jktd. Sigma Blade Mixer
-500 gal. SS jktd. agit. reactor low pressure (2)
-Artisan 1 sq. ft wiped film SS complete system
-Lightnin mixers ½ HP w/shafts & props (20) NEW
-Ross 15 gal. SS jktd. mixtruder 7½ HP Mdl. AMK 15
-Micro Atomizer SS 5HP XP Mdl. #5MA

RIBBON BLENDER

-Abbe 40 cu. ft. SS clad ribbon blender
-Strong-Scott 200 cu.ft. CS ribbon blender
-J.H. Day 40 cu.ft. Ribbon Blender, S/S (3)

PRESSURE LEAF FILTERS

-750 sq.ft. U.S. Autojet, Mdl #750, 316 SS
-Pronto Filter SS 30" Dia, 450 psi
-Industrial Filter 100 sq.ft. Type 122 ID 31 Model OMD
-Enzinger leaf filter SS 360 sq.ft.

REACTORS

-4000 gal.316 SS reactor w/pipe coil (4)
-Pfaudler 2000 gal. jktd reactor 150 psi/75 psi
-Norwalk 3000 & 750 gal. SS reactor dimple jktd FV/50
-2500 gal. SS reactor 90/50 psi
-Pfaudler 200 gal. SS reactor
-Pfaudler 9200 gal G/L Reactor 90/90 psi Unused
-Downington 1500 gal. Monel Clad reactor 55/70 psi
-Glascote 3000 gal G/L Reactor, 90/100 psi
-13,500 gal. 304 Elc Dim., Jktd, Reactor, 30/100 psi
-Pfaudler 500 gal. G/L jktd. vac. reactor

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LIQUIDATION

T316 S/S TANKS-VERTICAL, ON LEGS

10' diax 12'6" deep & dish,7,500 gal., 20 HP turbine
10' diax 12'6" deep & dish,7,500 gal., 15 HP turbine
10' diax 12'6" deep & dish, 7,500 gal, 15 HP turbine
10' diax 12'6" deep & dish, 7,500 gal. no mixer
10' diax 6'6" deep & dish, 4,000 gal 10 HP turbine

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JUST PURCHASED PATTERSON-KELLEY 60 cu. ft. TWIN SHELL BLENDER, 150# MAX. DEN. STAINLESS STEEL W/BAR

BLENDER-1.3 cu. ft. Abbe, S.S. with Jkt.
BLENDER-.11 cu. ft. Littleford Model M-5-G, S.S.
BLENDER-200 cu. ft. Patterson-Kelley Twin Shell, C/S
CENTRIFUGE-48"x30" Western States, Perf, S.S316
CENTRIFUGE-AS-16NF Sharples, 3HP, 15,000 RPM
CHILLER-150 ton Carrier, 19C6D7-5-3 Hermetic
COMPRESSOR-400 CFM @ 100 PSI Fuller C-80-80H, 100HP
COMPRESSOR-800 CFM @ 125 PSI Clark ICA-6, 150HP
CONDENSOR-165 sq. ft. Karbate, 75/75 PSI
CONDENSOR-278 sq. ft. 304 S.S. 175/175 PSI UNUSED (2)
CONDENSOR-388 sq. ft. 304 S.S. 150/150 PSI UNUSED (4)
CONDENSOR-1636 sq. ft. 316 S.S. 150/150 PSI (3)
DRYER-5 cu. ft. Patterson-Kelley Conical S.S.
DRYER-20 cu. ft. Economy Conical C/S
EVAPORATOR-1 sq. ft. Rodney Hunt 316 S.S. w/Condenser
EVAPORATOR-6.54 sq. ft. Rodney Hunt, 316 SS System
FILTER-5'6"x8' Bird-Young 304ELC, Rot Vac
FILTER-7"-30" Shriver & Sperry units
KETTLE-50 gal. Mueller S.S. with Double Motion Agit.
MILL-SH, 2TH, 4TH Mikro Pulverizers
PROCESSOR-5-10 cu. ft. P.K. V-Type S.S. Jkt. Vac. 550 # (4)
REACTOR-750 gal. glass lined Pfaudler 100 FV/90 (2)
REACTOR-2000 gal. C/S & S.S. 15/15 PSI (2)
TANK-4000 gal. Vertical 304 S.S. 25 PSI UNUSED (2)
TANK-9500 gal. Horizontal S.S. on saddles
VACUUM PUMP-150 CFM @ 26" Nash H-6, 25 HP rebuilt
VACUUM PUMP-1550 CFM @ 24" Nash H-10, 125 HP

H&P EQUIPMENT CO. INC.
P.O. Box 368 Montville N.J. 07045
(201) 335-9770-1-2-3 ● TELEX 136357

Tanks: 250-1600 Gal. storage & mixing, S/S & fiberglass
6000 Gal. 304 S/S storage tank, vertical, closed, dished hds.
(2) Richmond 3000 Gal. S/S Reactors, 60/40 PSI, 50 HP 2-Spd.
Richmond 3000 Gal. S/S Reactor, 60/40 PSI, 20 HP.
(3) Pfaudler 30 Gal. S/S Reactors, 60/90 PSI, 1½ HP XP V/S.
Hercules 500 Sq. Ft. "Roto-Jet" Filter, 316 S/S, 60 PSI.
Jacobson 6DSF-11 "Universal" Hammer Mill, 100 HP.
(2) Entoleter Type EIM "Centrimil", 48" Dia., 316 S/S, 150 HP.
Simpson "Rotex" model 881 Sifter, 316 S/S, single deck.
Fitzmill, 316 S/S; No. DKAS012, 20 HP.
Holo-Flite Screw Dryer, 16" Dia. x 20' L., C/S, Jkt. trough.
Chromalox 200 KW Hot Oil Unit.
Chromalox 20 KW Hot Oil Unit (ALL XP)
Sterling 12 KW Hot Oil Unit.
Hockmeyer 50/25 HP High Speed Disperser S/S, XP #2 Spd.
Cowles 50 HP V/S Disperser, XP, S/S, High-speed.
(3) Sussmeyer model SRS Sand Mills, 30 HP XP.
Morehouse-Cowles 12-30 & 10-25 Sand Mills, 40 & 25 HP XP.
Patterson Steel Ball Mills, 8'x8' & 6'x5' and other sizes.
Abbe 4½x13' Continuous Steel Ball Mill, 60 HP.
Patterson & Abbe Ceramic-Lined Pebble Mills from 16"x21" up.
Reliable 8"x12" Two Roll Mill, 5 HP.
36 Cu. Ft. C/S heavy-duty ribbon blender, 10 HP XP.
(2) Letech S/S sanitary ribbon blenders, 12.25 Cu. Ft., 2 HP.
J.H. Day "Nauta" Blender, 21; Cu. Ft. 316 S/S, MBX
Votator: (2) 4"x48" L. Tubes, 316 S/S, 15 HP.
Dorr-Oliver "Web-Trol" 6'x8' Rot. Vac. Filter, 316 S/S.
Crandall 5-Gal. subsurface weigh-type filler, S/S, model F-2.
Turba-Film 1.13 Sq. Ft. Lab evaporator, 316 S/S, 1 HP complete.
Nichols/Niro 10 ft. Dia. Spray Dryer, 129 #/Hr., all S/S.
Baker-Perkins & Readco dbl. arm mixers; 2½ to 350 gal., C/S, S/S
Patterson-Kelly 5 cu. ft. V-Blender, S/S, 108 #/c.f.
Heat Exchanger 489 sq. ft., 304 S/S, 75/15 psi.

A-1 CHEMICAL EQUIPMENT CO.
59 EAST 21st STREET CHICAGO, IL 60616
(312) 842-2200

M&E SELECT used machinery

LARGE BIRDS

(12) 40" x 60" Bird decanter, 316 S/St, 15/3 deg. contour, 5" pitch, single lead conveyors w/Stellite hard surfacing, 80:1 gearbox, 100 HP V-belt main motor drive. New late 60's. Excellent condition. Limited Use. Immediately Available from Stock.

(2) 32" x 50" Bird decanter, 316 S/ST, 15/3 deg. contour, 5" pitch, single lead conveyors w/Stellite hard surfacing, 60:1 gearbox, 75 HP V-belt drive. Excellent condition. Limited Use. Immediately Available from Stock.

WYSSMONT TURBO DRYER

Stainless Steel, mdl L-12, steam heated, 48" dia S/ST trays & sides w/heater controls.

VACUUM DOUBLE DRUM DRYERS

(2) Blaw Knox designed double drum dryers, 18" x 48" & 36" x 120", chrome plated, each w/- vacuum chambers & vacuum pump package. Excellent condition. Ready to Ship.

WYSSMONT DRYER

Model N-22, 8' dia trays 22 high, with stainless steel contact parts. May be shipped in one piece. Steam heated.

ROTARY FILTERS

Ametek 8' x 12' rotary w/belt discharge, 316 stainless, new 1974 - Excellent condition.
-Ametek 5" x 8½' rotary w/belt discharge, 316 stainless. New 1974 - Excellent condition.

STAINLESS DRYER

Louisville stainless steel steam tube dryer, 8' dia x 40', stainless steel clad shell w/stainless steel steam tubes.

Also Available:

Roto-Louvre mdl 900-32, 9' dia x 32' long, steam heated, 30 HP motor, all fans & Flex-Clean dust collector.

CRYSTALLIZER

Titanium contact parts, 8000 lbs p/hr capacity. New 1976. Complete and still installed.

RAYMOND ROLLER MILLS

★★★ Just Purchased ★★★
(3) Raymond high side roller mills, model 5057, double whizzer separator, fan; feeder, cyclone, duct work & bucket elevator.

LARGE SHARPLES SUPER DECANTERS

(2) Model P8100 Sharples Super Decanter, 316 S/ST, carbide tiles, 250 HP main drive, 128:1 gearbox w/backdrive. New 1979. Complete. Excellent Condition.

FLUID BED DRYER

Jeffrey fluid bed dryer, 5' x 20', 304 sanitary construction, complete installation including fans, dust collector, S/ST scrubber & controls.
EXCELLENT CONDITION

INDUSTRIAL FILTERS

(2) Industrial Filter Sysytems, 600 & 200 sq. ft. each, dry cake discharge,vulcanized rubber lined tank w/316 S/ST filter leaves, completely automated w/computer controlled actuators. Like New Condition

RESIN REACTOR

(1) 8500 gallon 316 S/Tt reactor, 30 PSI/full vacuum internal, 15 PSI jacket, 45 PSI 316 S/ST coils, 10/15 HP 2 speed turbine agitator, S/ST overhead condenser. New 1977. Still installed. Excellent condition.

STRONG SCOTT SOLIDAIRE DRYERS

Model SJS-24-16, 24" dia x 16' long, 304 stainless, dimple jacket, 50 HP vari drive.
Model SJS-20X16, 20" dia x16' long, 316 stainless steel, jacketed.
Model SJS8X52, 8" dia x 52" long stainless, jacketed, pilot size.
Stainless steel mdl SJS-36-22 w/-jacket & 40 HP drive

JUST PURCHASED

Link Belt Roto-Louvre Dryer10'3' ' x 36' long, mdl #1003-36, complete system incl 50 HP drive, firebox w/20,000,000 BTU gas burner, all fans, duct work & controls, multi-cyclone collector & Sly 30,000 CFM baghouse. Excellent Condition – Still Installed.We will load – Call for FOB Pricing

AMETEK ROTARY PRECOAT FILTERS

(1) 2' x 3', T304 sanitary stainless, complete station w/vacuum receiver, pump, mix tank & Nash vacuum pump. Rebuilt.
(3) 10' x 16', 316 stainless steel, 100 HP Roots vacuum pumps, receivers, interconnecting piping, etc. Rebuilt.
(1) 3' x 3', string discharge, 316 stainless, incl S/ST agitated through, vari speed mtr, vari speed dry on drum, 316 stainless Sihi vacuum pump. Excellent condition.

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CMR MARKETPLACE

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COPY DEADLINE: Wednesday Noon preceding date of publication.

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Active Buyer of surplus chemicals, pigments, dyes, resins, waxes, plastics etc. Call toll free 1-800-631-3337 or 617-829-6736. Deer Polymer Corp. Chemical Div. 17 Industrial Drive, Holden, MA 01520.

All Surplus — Chemicals — Resins — Oils — Colors Solvents — Plasticizers — Specialties — Intermediates — bought by: Rambach Chemical Co., Inc. 52 Vesey Street, PO Box 5187, Newark, NJ 07105. Phone: (201) 589-7774.

Cash For your surplus chemicals, resins, colors, pharmaceuticals, dyes, other raw materials, by products, wastes, residues and off-spec materials. Morgan Chemicals Inc., 5500 Main Street, Williamsville, NY 04221 (716) 632-4000; Telex 919133.

Realize Top Value from the sale of your surplus Chemicals We buy surplus Chemicals, Plastics, Rosins, Waxes, etc. Bonmar Chemical Co., P.O. Box 494, Fair Lawn, NJ 07410. Phone: (201) 791-2448; Telex: 13-0434.

Resyn Corp. will buy your surplus chemicals, resins and resin raw materials — prime or off-specification, Resyn Corp. P.O. Box 63, 1540 W. Blancke St., Linden, NJ 07036. (201) 862-8787.

We Buy Surplus chemicals, colors, resins, solvents, plasticizers by-products, etc. Over 50 years of service to industry. Eastern Color & Chemical Co., Inc. 65 Roosevelt Ave., Dept. C.P.O. Box 1029, Valley Stream, N.Y. 11582. (516) 791-4445.

Your Surplus is our inventory. We buy all chemicals, pigments, resins, solvents, plasticizers and pharmaceuticals. Prompt inspection and cash terms on each offering. Pyramid Chemical Sales Co., 1035 Virginia Drive, Fort Washington, PA 19034. (215) 542-9292.

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Overpack 70 gallon used steel drums with rings and covers. Can hold a 45 gallon drum: Tel.: 658-9223 or 348-6857 area 514.

Plant Liquidation: Georgia Location — 40,000 Sq. Ft. Plant, Land & Equipment For Sale. (1) 75 Gal. 304 S/S Reactor. (8) 700 Gal. up to 1,800 Gal. 316 S/S Reactors. (6) 3,800 Gal. FRP vertical tanks. (4) 6,000 Gal. FRP vertical tanks (1) 6,000 Gal. Aluminum Horz. tank. (7) 1,500 Gal. FRP vertical tanks. C/S tanks. 30-50 HP. Boilers. (2) Homogenizers. Plus More! Write: Sun-Belt Equipment Co., Inc. P.O. Box 492, Fountain Inn, S.C. 29644. Tel.: (803) 855-3047 or 855-3048.

Stainless Steel Mixing Equipment Remanufactured on a special or custom basis for powders, slurries, blends, liquids, reactions etc. Let us quote your needs. Mixer-King Company. 9503 Fremont, Kansas City, Missouri 64134. 816-761-8481.

POSITIONS OFFERED

Deer Polymer Corporation, a major domestic and international buyer and seller of plastic resins and chemicals has a full time opening for a Sales Assistant in the Chemical Division. Primary responsibilities include developing and maintaining chemical business accounts and assisting manager in our import/export business. 1-3 years experience in chemical sales preferred. Join a growing company which offers challenging responsibilities, competitive salary and an excellent benefit/bonus package. Interested applicants, send resume to: Deer Polymer Corporation, Holden Industrial Park, Holden, MA 01520.

POSITIONS OFFERED

Deer Polymer Corporation, is a major broker of resins and chemicals respected world-wide for service and integrity. Business growth has created the need for an experienced Chemical Trader of surplus chemicals. The ideal candidate will have a technical background and solid international experience with importing and distribution. This person will join a dynamic, high-growth company that offers challenges, responsibilities and matching compensation. Qualified individuals are encouraged to send their resume and salary history in confidence to: James E. Metcalf, Corporate Personnel Director. Deer Polymer Corporation, Holden Industrial Park, Holden, MA 01520

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Custom solids packaging and distribution in the port of Mobile, Multi-wall bags, bulk bags, drums and bulk. Screening, repackaging and warehousing. Rail and truck facilities. Contact: Philip Hahn, SEAPAC, Bldg. 14A, Brookley Complex, Mobile, AL 36615, 205/433-3541.

GATT Talks 'Most Ambitious,' Yeutter Says

New global negotiations to reduce trade barriers and open world markets will be "the most ambitious trade negotiations" in history, says US Trade Representative Clayton Yeutter.

"We have a window of opportunity to achieve things in the next five years that have been impossible to achieve in the last 25 years," he told a House trade subcommittee where he reported on the recently successful efforts by world trade ministers to launch a new round of trade talks.

Mr. Yeutter said preparation for the "Uruguay round," named for the site of the just completed ministerial meeting in Punta del Este, Uruguay, will begin in Geneva by the end of next month.

The US, plagued by a record trade deficit, managed at the meeting to place several objectives on the upcoming agenda including two high on the chemical industry's priority list: improving market access for foreign investments; and increasing protections for intellectual property rights such as trademarks and patents.

"The negotiations will be tough," said Mr. Yeutter, "but we are optimsitic that these negotiations will produce multilateral agreement on new rules and disciplines that will open significant new opportunities for American exporters and strengthen the global trading system so that all can compete on fair terms."

CHEMICAL PROFILE

Continued from Page 50

partly allayed by a major study which recently asserted that formaldehyde workers show no greater tendency to get cancer than other workers.

WEAKNESS

Merchant marketers have lost at least 1c. per pound in value over the last year due to lower methanol prices. The amount of formaldehyde compounds used in end products such as particle board are being reduced with technological improvements. This will slow formaldehyde growth in its major end use, urea formaldehyde resins. Overcapacity is a problem in some regions and average operating rates are in the low 70's percent range.

OUTLOOK

Formaldehyde demand is expected to grow slightly faster than GNP through the decade. Urea Formaldehyde resins, despite the strong housing industry, will be stagnant through 1990. Government agencies continue to investigate the safety of formaldehyde in the workplace and in end products. It is not clear what the final outcome of these investigations will be.

COATINGS & PLASTICS

Continued from Page 31

nounced any increases to date, but prices have been soft for some time; this increase in raw material costs will further damage profitability.

PLASTICS MATERIALS

POLYESTER RESINS — The Chemicals Division of USX Corporation will be following Reichhold Chemicals Inc.'s move to increase list and selling prices for its unsaturated polyester resin lines, effective October 1, a company spokesman announced last week. Prices for commodity grades will be increased by 2c. per pound.

Remaining producers have not yet committed themselves to any price change: Reichhold and USX are the two largest domestic producers of unsaturated polyester.

Prices and margins had eroded considerably this year, in response to falling crude values and customer pressure for passthroughs, despite the fact that many raw material precursors are not crude-based. The increases will be needed, producers say, to enable them to absorb higher styrene monomer, glycol, and phthalic anhydride costs.

POLYVINYL CHLORIDE RESINS — Vista Chemicals Inc. has elected to reestablish June price schedules for its polyvinyl chloride products, company spokesmen reported last week.

This follows moves by almost all other major domestic producers of PVC to hike selling prices 2c. per pound. Selling prices for pipe grade will now be 30c. per pound, those for general purpose grade, 31c. per pound and those for specialty grades 32c. per pound.

ADVERTISERS' INDEX

CHEMICAL PROFILE

FORMALDEHYDE SEPTEMBER 29, 1986

SUPPLY PRODUCER	CAPACITY*
Borden (11 sites)	1,760
BTL (4 sites)	320
Celanese (3 sites)	2,060
Chembond (3 sites)	390
D.B. Western (2 sites)	90
Du Pont (5 sites)	1,370
GAF (2 sites)	200
Georgia-Pacific (8 sites)	1,185
Hercules	170
IMC	135
Monsanto (3 sites)	610
Perkins Industries	60
Rogue Valley Polymers	300
Wright Chemical	114
Total	8,584

*Millions of pounds annually on a 37 percent basis. Borden added 200 million pounds of capacity to its 250-million-pound-per-year Geismar, La. unit in February. BTL Specialty resins, owned by Bakelite Thermosets Ltd., Canada, acquired 283 million pounds of capacity from Reichhold Chemicals Inc. at 4 locations in June. Of the newly acquired units, BTL shut the 73 million pound plant at Tuscaloosa, Ala. in June and plans to idle the 50 million pound unit in Kansas City, Kan. early next year. Reichhold shut a 32 million pound per year unit in Tacoma, Wash. in 1985. Nuodex shut its 130 million pound per year plant at Ford, N.J. in February, 1985. Rogue Valley Polymers purchased its White City, Oregon plant from Reichhold in 1985. Wright Chemical added 34 million pounds of annual capacity to its Wilmington, N.C. plant this September. D.B. Western started a new 40-million-pound-per-year plant in Virginia, Mont. in January. Its other 40-million-pound unit in Las Vegas, New Mexico is three year old. Profile last published 9/26/83, this revision, 9/29/86.

DEMAND

1985: 5.8 billion pounds; **1986:** 6 billion pounds; **1990:** 6.63 billion pounds.

GROWTH

Historical (1980-1985): 4 percent per year; **future:** 2.5 percent per year.

PRICE

Historical (1952-1983): High, 9.05c. per pound, 37 percent basis, uninhibited, tanks, dlvd.; low 3c. per pound, same basis **Current:** 6 cents per pound, same basis.

USES

Urea formaldehyde resins, 27 percent; phenolic resins, 21 percent; acetylenic chemicals, 11 percent; polyacetal resins, 8 percent; pentaerythritol, 7 percent; hexamine, 5.5 percent; urea-formaldehyde concentrates, 5.5 percent; melamine resins, 3.8 percent; MDI, 4.7 percent, miscellaneous, 5 percent.

STRENGTH

A strong housing industry is bolstering demand for major end use markets; urea-formaldehyde resins, phenolic resins and pentaerythritol. Sharply lower methanol prices this year have reduced production costs for this largely captive chemical. Concern about formaldehyde toxicity to chemical workers has been

Continued on Page 48

Rohm & Haas' Dicofol Ordered Back by EPA

Environmental Protection Agency last week ordered an immediate halt to the distribution and sale of dicofol pesticide active ingredients manufactured by Rohm and Haas Company since June 29 of this year.

The agency also cancelled product registrations that contain dicofol as an active ingredient and asked the company to recall all cancelled stocks.

EPA says Rohm and Haas provided data demonstrating that it failed to meet the reduction levels of DDT and related contaminants in dicofol which the agency required. The reduction was ordered earlier this year to protect the environment from high levels of DDT contamination.

A Rohm and Haas spokesman says the company intends to comply with the provisions of the order and has already begun the notification process to recall materials produced after June 29.

PRODUCTION PROCESS

"We feel we can modify our production process in a month or so, adding a post-production process that will bring us within the newly defined 2.5 percent limit (of DDT content)," he says.

Dicofol is used to control various species of mites, primarily on cotton and citrus.

Last May, EPA issued a regulation requiring a two-stage reduction of DDTr in all dicofol products manufactured after June 29, 1986. DDTr includes DDT, DDD, DDE, tetrachloro-DDT and other DDT related compounds.

After June 29, all dicofol products were to contain less than 2.5 percent of DDTr contaminants in the technical-grade compounds. After December 31, 1988, all technical-grade products must contain less than 0.1 percent DDTr.

EPA says the data submitted by Rohm and Haas to support the continued registration of its dicofol products show DDTr contamination two to three times greater than the maximum permissible level.

The Rohm and Haas spokesman says the company does not agree with EPA's interpretation of the data, but has no plans to contest the agency's action. He also says Rohm and Haas will make the necessary engineering and processing modifications to meet the less than 0.1 percent DDTr standard when it takes effect in 1988.

DDT, once a widely used insecticide, was banned in 1972 by EPA after it was shown to cause severe reductions in the reproductive success of various fish and birds. DDTr, unwanted contaminants in the manufacturing of dicofol, may cause thin eggshells and other adverse reproductive effects in birds.

In addition, the rate of mortality in developing fish eggs increases as DDT residues in fish increase. DDTr are long lasting in the environment and build up in the food chain. Therefore, birds-of-prey, like the peregrine falcon, are especially affected by these compounds.

The cancellation action applies not only to all dicofol products formulated by Rohm and Haas since June 29 but also to those products formulated by other registrants who obtained their dicofol active ingredients from Rohm and Haas. These dicofol registrations account for a significant percent of the 2 to 3 million pounds used in the US each year.

Not immediately affected by the actions are the dicofol active ingredient products manufactured by Makhteshim-Agan (America) Inc. of New York, the only other manufacturer of dicofol active ingredients.

However, EPA has determined that the product chemistry information submitted by Makhteshim-Agan may not be adequate and is requiring additional data within 30 days in order to assess whether their dicofol products meet the 2.5 percent DDTr upper limit.

There are approximately 84 registrants formulating products with dicofol active ingredients. About 55 percent of these failed to respond to the May reporting requirements. As a result, EPA also is now notifying these companies that their registrations are cancelled for failure to respond to agency requirements. Users having leftover dicofol stocks may continue to use these stocks until they are depleted.

EPA REVIEW

EPA conducted a special review of dicofol, between March 1984 and May 1986. As part of its assessment, EPA consulted with the Department of Interior's U.S. Fish and Wildlife Service (FWS) concerning the effects of continued use of dicofol on endangered species.

FWS responded by saying that the peregrine falcon would be in jeopardy from the use of dicofol at current geographical-use patterns and rates. FWS further stated that in all parts of the United States, except California, jeopardy to the peregrine falcon could be precluded by reducing the level of DDTr in technical dicofol to 0.1 percent, consistent with the time frame set by EPA. A large portion of dicofol use is in California.

OES concluded that the situation in California called for one of two alternative actions: banning immediately all sale and use of dicofol products containing levels of DDTr greater than 0.1 percent; or requiring dicofol registrants to fund a portion ($325,000) of the privately-run program to aid the recovery of the peregrin falcons in California.

The funds for the second alternative would be used to offset the negative effects of the use of dicofol and assure the continued recovery of the bird population during the period before all products containing more than 0.1 percent DDTr are prohibited in channels of trade.

Dicofol has been registered since 1957. Its trade names include "Acarin," "Kelthane" and "Mitigan." All current production is outside the US. Major useage is in Arizona, Florida, Texas and California.

JOBS & PEOPLE JOBS & PEOPLE

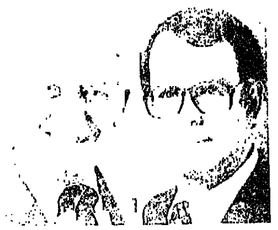
William E. Fell, who has been appointed president of the Inorganic Chemicals Division of Kennwalt Corporation. He will be responsible for the production and sale of chlorine, hydrochloric acid and a variety of chlorates and other chlorine-based chemical commodities.

W.R. Grace Elects Agricultural V-P's

W.R. Grace & Co. has elected C. Dean McWilliams and Harry B. Risinger corporate vice-presidents. Both men are from the agricultural chemicals group, based in Memphis, Tenn.

Mr. McWilliams joined Grace in 1964 as a salesman in the Nitrogen Products Division. In his tenure at W.R. Grace, he has been regional manager, vice-president of fertilizer marketing and executive vice-president of marketing with the agricultural group.

Mr. Risinger has held several managerial positions with the agricultural group, including manager of financial analysis.



C. McWilliams H. Risinger

RAMAN MALHOTRA has been appointed manager of market evaluation in Air Products & Chemicals, Inc.'s technical diversification department... **JOSEPH S. NAWORSKI** has been named general manager of catalytic studies at Catalytica Inc., Mountain View, Calif... **DOUGLAS C. TROST, JR.** has been appointed account supervisor for sales of water-soluble polymers to the coatings and buildings industries in the midwest for Hercules Incorporated.

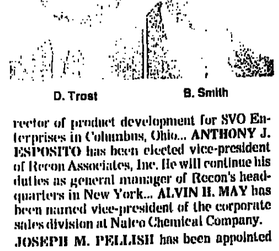
BRIAN SMITH has joined International Technology Corporation as senior vice-president of remediation and construction... **JOHN PERRY** has been elected product manager for Fike Corporation's tantalum metalating group, coming from a similar position with Generals Metals Technologies... **ROY TAYLOR** has been named corporate director of planning and development at Rhone-Poulenc Inc., where he will be responsible for strategic planning and evaluating capital investment projects.

ILIJA GAWRILOW has been appointed director of regulatory services for the St. Paul-based H.B. Fuller Company... **GARY J. HEFFNER** has joined Atlantic Industries, Inc.'s sales staff, serving accounts in Wisconsin, Michigan and Minnesota... **CHARLES J. BENJAMIN** has been named vice-president of sales of an expanded marketing and distributing department at Arco Chemical Company.

RICHARD S. GRANT has been elected president of Airco Distributor Gases, a new division of BOC Group, Inc... **JOHN S. HEGEDUS** has joined Sterling Drug Inc. as vice-president of the corporate development department... **DAVID E. JONES** has been appointed vice-president the special products division of A.H. Robins Company.

A. BRUCE SHAPIRO has been named vice-president of corporate planning at Enzo

R. Malhotra J. Naworski



D. Trost B. Smith

Howard M. Nelson, who has been named president of Kaiser Chemicals, the industrial and specialty chemicals division of Kaiser Aluminum & Chemical Corporation. Mr. Nelson will continue as a senior vice-president of the Kaiser Corporation while relocating to Cleveland.

Soltex Polymer Names New Product Managers

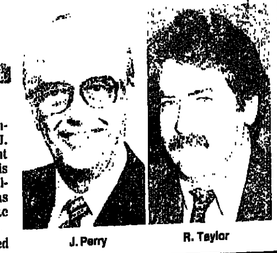
Soltex Polymer Corporation has appointed Joe Muzikowski business manager for "Fortilene" polypropylene and Bill Mould product manager for "Solef" polyvinylidene fluoride.

Mr. Muzikowski was formerly director of marketing services. Mr. Mould comes from the "Solef" sales division.

Soltex, a subsidiary of Solvay American Company, is headquartered in Houston, Tex. Solvay & Cie. SA, based in Belgium, is the parent company.

J. Muzikowski B. Mould

I. Gawrilow A. Esposito



J. Perry R. Taylor

ANTHONY J. ESPOSITO has been elected vice-president of Recon Associates, Inc. He will continue his duties as general manager of Recon's headquarters in New York... **ALVIN H. MAY** has been named vice-president of the corporate sales division at Nalco Chemical Company.

JOSEPH M. PELLISH has been appointed

BIOCHEM INC.... **PETER L. PETRULO** has been appointed district sales supervisor of the Adhesives Division at National Starch & Chemical Corporation... **WILLIAM F. LALOR** has been elected president of Stuart Pharmaceuticals, a division of ICI Americas Inc.

CURTIS PHILLIPS has been named intermediate product sales representative in Ohio, Michigan and Kentucky for BioGuard's chemical specialties division, Bio-Lab... **RHONDA GERMANY** has been appointed consultant to the Advanced Materials & Electronics Division of Chem Systems Inc... **STEPHAN RUDOLPH** has been elected manager of the product technology practice at Arthur D. Little, Inc.

MEETINGS CALENDAR

SEPT 29, 1986

THIS WEEK

EUROPEAN PETROCHEMICAL ASSOCIATION, annual meeting, Monte Carlo, Monaco, September 28-October 1.

OCTOBER

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS & COLORISTS, international conference and exposition, Westin Peachtree Plaza Hotel, Atlanta, Ga., October 28-31.

AMERICAN MICROCHEMICAL SOCIETY, eastern analytical symposium, jointly with American Chemical Society and Society for Applied Spectroscopy, New York Hilton Hotel, New York, October 20-24.

AMERICAN OIL CHEMISTS SOCIETY, second world conference on detergents, Montreux, Switzerland, October 5-10.

ASSOCIATION OF THE NON-WOVEN FABRICS INDUSTRY, eighth international conference and exposition, Georgia World Congress Center, Atlanta, Ga., October 21-23.

CHEMICAL GROUP, NATIONAL ASSOCIATION OF PURCHASING MANAGEMENT, Fall Conference, Marriott Pavilion Hotel, St. Louis, Mo., October 21-23.

CHEMICAL SPECIALTIES MANUFACTURERS ASSOCIATION, seminar on aerosol technology, Ramada Hotel O'Hare, Rosemont, Ill., October 27-29.

COMMERCIAL DEVELOPMENT ASSOCIATION, impact of mergers and acquisitions on the future of technology-driven corporations, Hershey Hotel, Hershey, Pa., October 26-29.

DRUG, CHEMICAL & ALLIED TRADES ASSOCIATION, 96th annual meeting, The Breakers, Palm Beach, Fla., October 15-19.

EUROPEAN CHEMICAL MARKETING RESEARCH ASSOCIATION, 1986 conference, "The Chemical Industry Faces Its Future," Switel Eurotel, Antwerp, Belgium, October 13-15.

EUROPEAN PETROCHEMICAL ASSOCIATION, distribution meeting, Hotel Loews, Monte Carlo, Monaco, October 19-22.

FIRE RETARDANT CHEMICALS ASSOCIATION, Fall conference on proper processing and selection of flame retardants, Kiawah Island, S.C., October 19-22.

NATIONAL RENDERERS ASSOCIATION, 53rd annual convention, Ritz-Carlton Hotel, Naples, Fla., October 14-18.

SOCIETY OF CHEMICAL INDUSTRY, chemical industry medal dinner, Plaza Hotel, New York, October 15.

SOCIETY OF THE PLASTICS INDUSTRY, plastics show and conference — South, jointly with the Society of Plastics Engineers, Georgia World Congress Center, Atlanta, Ga., October 8-10.

SOCIETY OF THE PLASTICS INDUSTRY, polyurethane division, 30th annual rigid polyurethane technical/marketing conference, Toronto, Ontario, Canada, October 15-17.

UNITED STATES, 10th international congress of essential oils, fragrances and flavors, Omni Shoreham Hotel, headquarters hotel, Washington, D.C., November 16-20.

K-'86, 10th international trade fair for plastics and rubber, Dusseldorf, West Germany, November 5-13.

LATIN AMERICAN PETROCHEMICAL ASSOCIATION, sixth annual meeting, Rio Palace Hotel, Rio de Janeiro, Brazil, November 23-25.

NATIONAL PAINT & COATINGS ASSOCIATION, 95th annual meeting, Atlanta Hilton Hotel, Atlanta, Ga., November 3-5.

NOVEMBER

AMERICAN PETROLEUM INSTITUTE, annual meeting, San Francisco, Calif., November 9-11.

CHEMICAL MARKETING RESEARCH ASSOCIATION, business school, personal computers in the workplace, Scanticon Executive Conference Center, Princeton, N.J., November 5-7.

DRUG, CHEMICAL & ALLIED TRADES ASSOCIATION, Fall luncheon, Waldorf-Astoria Hotel, New York, November 19.

FERTILIZER ROUND TABLE, Sheraton Inner Harbor Hotel, Baltimore, Md., November 17-19.

FRAGRANCE MATERIALS ASSOCIATION OF THE

LATER ON

CHEM SHOW, 42nd exposition of the chemical industry, Jacob K. Javits Convention Center, New York, New York, December 7-10.

CHEMICAL SPECIALTIES MANUFACTURERS ASSOCIATION, 73rd annual meeting, Marriott's Harbor Beach Resort, Fort Lauderdale, Fla., December 7-11.

NATIONAL ASSOCIATION OF CHEMICAL DISTRIBUTORS, 15th annual meeting, Ritz-Carlton Hotel, Naples, Fla., December 2-6.

BUSINESS BRIEFS BUSINESS BRIEFS

AIR PRODUCTS & Chemicals Inc. has introduced a new group of epoxy curing products for use in high-performance epoxy resin systems. "Amicure" DBU tertiary amine and "Amicure" SA series tertiary amine salt accelerators provide fast cures at moderate temperatures and extended pot life at room temperature, Air Products says.

CHEMICAL LEAMAN TANK LINES has opened a new "BulkModal" rail/truck transfer service facility in Houson, Tex. The facility will ship liquid and dry bulk commodities in conjunction with Burlington Northern railroad hub center in Houston. The facility is currently transporting and transferring bulk plastics for Occidental Chemical Corporation.

C.P. HALL COMPANY has reintroduced "Plasthall" dibutyoxyethyl phthalate for cellulosic and urethane polymer formulators. The material improves the processing and formability characteristics of cellulose acetate film and sheet compounds, according to Hall, and also enhances the processing and flexibility of cellulose-acetate-butyrate compounds.

EASTMAN CHEMICAL PRODUCTS has introduced a new development product, 2-phenylhydroquinone, for use as a chemical, pharmaceutical and polymer intermediate. No-charge samples are available for planned evaluation and technical response. The projected long-term guideline price for PHQ in quantities of approximately 200,000 pounds per year is expected to be between $20 and $22 per pound, with existing technology.

HALOCARBON LABORATORIES, Hackensack, N.J., affiliate of Halocarbon Products Corporation, has developed a new 99.9 percent-pure trifluoroacetic acid that eliminates the need for further distillation, according to the company. The acid is used in the production of agricultural products, pharmaceuticals, photographic films and as a catalyst for a range of applications.

MARTIN MARIETTA MAGNESIA Specialties has appointed **M.A.F. Magnesite BV** as its sales representative for technical and agricultural magnesium oxide products marketed throughout Europe. The products are sold under the "MagChem" name for industrial applications, "AniMag" for animal feeds and "FloMag" for fertilizer suspensions.

UNION CARBIDE CORPORATION has appointed Plastic Distributing Corporation, Ayer, Mass., as its authorized distributor for rotational molding products and "Unipurge" polyethylene purging compounds throughout New England, New York, New Jersey and Pennsylvania. PDC also distributes packaged quantities of selected Carbide telecommunications wire and cable compounds and ethylene vinyl acetate copolymers in New England and New York.

VELSICOL CHEMICAL CORPORATION has moved its corporate offices from downtown Chicago to suburban Rosemont, Ill. Velsicol manufactures and markets professional pest control products and specialty chemicals.

986
Chemical Marketing Reporter

NEWS AT HOME

NEWS ABROAD

THE MARKETS

CMR MARKET INDEX

CHEMICAL MARKETING REPORTER's market index of chemicals and related materials (100=1974 average), based on 97 key commercial chemicals, appears alongside with data for two weeks ago, last month and last year.

Sept. 26, 1986	152.04
Sept. 12, 1986	152.56
Aug. 29, 1986	152.42
Sept. 27, 1985	152.46

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CHEMICAL MARKETING CUES

GLYCERINE: P&G says it will nearly double production capacity ..... Page 7,16
DOP: Producers say broad price increases have 0-2 chance of success ..... Page 5,31
PHENOL: Manufacturers schedule two-cent advance for October ..... Page 7
PENICILLIN: Prices have been immediate, but they're off ..... Page 7,16